A Post-graduate Lecture
ON
DISEASES OF THE BREAST.

Delivered at the West London Hospital,

BY STEPHEN PAGET, M.A. OXON., F.R.C.S. ENG.,
SURGEON TO THE HOSPITAL AND TO THE METROPOLITAN HOSPITAL.

GENTLEMEN,—During eight years in the out-patient department at the Hospital for Sick Children, Great Ormond-street, I saw a good many cases of disease of the breast in infancy and childhood. I have never seen a new growth, either innocent or malignant, in a child's breast. Rapid malignant disease, such as occurs in childhood in the brain, the retina, the liver and kidneys, and the ovaries and testicles, does not attack the breast; adenoma, so common after puberty, never comes before that time. But there are three well-marked diseases of the breast in early life: first, nævus; next, the acute abscess of infants; and, thirdly, the subacute inflammation of one or both breasts at or near puberty.

1. Nævus of the breast is usually of the superficial capillary kind, a mere staining or nævoid thickening which is only skin-deep, and may fade, or may cure itself, as so many of these capillary nævi do, by gradual painless ulceration. But if a capillary nævus is brightly coloured, sharply defined, and raised a little above the level of the skin it had better be removed; and this should be done with fuming nitric acid, or a light touch of the cautery, and with the use of a little chloroform; weak caustics, such as ethylate of sodium, give in the long run less satisfaction and more pain. Or the nævus may be a true subcutaneous venous growth, an ill-defined swelling lifting up the breast, soft and puffy to the touch, not tender or painful—unless thrombosis has occurred in it—more full of blood at one time than another, and perhaps made smaller by a few minutes' steady pressure, perhaps visible through the thin skin over it as a dark swelling in or beneath the breast, and perhaps giving a distinct feeling of warmth to the hand. The best way to treat these erectile nævi of the breast in infants is with electrolysis, doing it patiently, with the help of chloroform, time after time, never using the current too long or too strong, lest the growth slough instead of shrinking. It is not safe to leave them alone, for Mr. Sutton has recorded the case of a boy aged seventeen in whose breast an erectile growth, after many years of slow increase, ulcerated and bled till the boy's life was in danger, and was only saved by the removal of the breast and the growth together.

2. Acute abscess of the breast in infants is worthy of consideration, for it is a definite affection, with well-marked features of its own, as in the following cases. (*a*) A male infant one month old. The swelling had been noticed a fortnight. In the outer and upper part of the right breast was an abscess containing half an ounce of very thick pus. There was an enlarged gland in the axilla. The infant was properly fed and looked well-nourished. The breast had not been hurt or roughly handled. (*b*) An infant a few weeks old. In the right breast was a very large abscess, extending round towards the axilla. The infant was well nourished; there was no history of any injury. (*c*) A male infant three weeks old. In the right breast was an abscess containing very thick pus. The left breast also was swollen. The infant was properly fed and well nourished. This acute abscess of the breast in infants occurs in the first few weeks of life in well-fed infants, neither syphilitic nor tuberculous and male as often as female. It spreads rapidly beneath the loose skin beyond the outer margin of the breast; it heals rapidly after incision. The pus is thick, healthy, and free from smell; the axillary glands are not much affected; the general health does not suffer. It may be due in some cases to the nurse's rubbing of the breasts after birth; I believe it may also be a result of the pressure and bruising of the infant's breasts[1] during its birth, like those partial ruptures of the sterno-mastoid which mostly are the result of prolonged labour or cross-presentation.

3. Among boys and girls at puberty there is a kind of inflammation, or rather congestion, of one or both breasts, which we rarely find at any other time of life. One or both breasts—usually one, and I think usually the left breast—is found slightly swollen, tender, and painful. The swelling is of the whole breast, but is not acute; the skin is not red, or hot, or tense, and the axillary glands are not much affected. The swelling is very slow to subside, nor does any treatment make much difference to it, and it never becomes acute and never suppurates. One part of the breast may feel harder than the rest, but as a rule the whole breast is evenly swollen, like a firm, flat pad under the skin. This sort of congestion of the breast may, very rarely, occur in adults, as in one curious case where both father and son—the father over forty, the son over twenty—were thus affected. But I have seen about fifteen cases, all near puberty and all just alike—never acute, never suppurating, and never much influenced by treatment.

Coming now to diseases of the breast in adult life, let me first speak of those cases where a patient believes that she has something the matter with her breast, though it is perfectly healthy. I suppose that every educated and sensitive Englishwoman sometimes wonders if she will ever have cancer of the breast, and examines her breasts now and again to reassure herself, and thus false alarms often happen.

1. I have seen three cases where the lower costal cartilages on the left side, just below the fold of the breast, were unusually prominent. Two of the patients came up from the country in great alarm; one came to the hospital. In all three the condition was exactly the same: the lower costal cartilages on the left side had a sharper outward curve than those on the right, and that was all. Two of the patients believed they had some disease of the breast; the third was in favour of an internal tumour pushing forward the cartilages. This trivial deformity of the left costal cartilages is not, I think, due to tight-lacing, but to a slight natural want of symmetry, just as the two hands or the two sides of the face are rarely quite symmetrical.

2. There may be a slight want of symmetry between the two breasts themselves. One may be a little larger, or fuller, or firmer to the touch than the other, or may show some slight difference in outline, or may even increase rather more rapidly at puberty; or the nipple of a healthy breast may slowly or suddenly become retracted. And any of these conditions may give rise to anxiety.

3. But, of course, the commonest cause of alarm is the feeling of pain in a healthy breast. Such pain may, in rare cases, be bad enough to deserve the name of neuralgia; but, as a rule, it is neither intense, nor paroxysmal, nor limited to one part of the breast. Like the aches and pains in the generative organs, those feel it most who are most ready to feel it—those who are sensitive and watchful. In one case—a thin, excitable woman—the pain was mostly in the upper and inner part of the breast, but was sometimes more diffused; it was worse after dinner, and whenever she paid much attention to it. In another case—a restless, nervous young woman—the pain returned, after years of freedom from it, while her mother was under my care for cancer of the breast.

4. Disease in the neighbourhood of the breast may be taken for disease of the breast itself. I have had a case of malignant disease beneath the lower edge of the pectoralis, so near the breast that it looked not unlike a tumour of the breast; and I have seen, in a man aged thirty-five, a large fatty tumour beneath the lower part of the breast, pushing it forward, so that the breast itself seemed enlarged.

These four conditions—prominence of the costal cartilages, inequality of the breasts, pain in the breast, and disease in the neighbourhood of the breast—are common enough to deserve our notice. Coming now to real diseases of the breast, let me first submit to you the notes of two cases of tuberculous abscess of the breast. One of them is of great interest, as it shows how nearly such an abscess may at first imitate cancer of the breast.

1. A thin, anæmic, hysterical woman, aged forty-five. Her father died of phthisis, and three of her sisters also died of it; two of her brothers were said to have suffered from it. Seventeen years ago, after the birth of one of her children, she had an abscess of the upper and inner part of the left breast: and now, close beneath the old scar, was an abscess that had been there for some weeks. The skin over it was thinned and livid; there was no tension, no œdema, no marked inflammation of the rest of the breast, no fever, and not much pain. It contained very thick pus, and its walls were covered with masses of indolent granulations. It healed very slowly.

[1] For the active proliferation of epithelium in the breasts at birth, causing them to swell, see Henoch, Diseases of Children, vol. i., p. 41, New Sydenham Society's translation.

2. A woman, thin and out of health, aged forty, with the scar of an old tuberculous abscess in her neck, had a small swelling in the upper part of the left breast, which had been there for two months. I made sure it was cancer, for it was hard, nodular, fixed in the breast, and neither tender nor painful; and it was of two months' duration. Moreover, the skin over the swelling was adherent to it, and the nipple had become, a few weeks ago, deeply retracted. Operation was delayed on account of menstruation, and in a few days the lump became soft and painful, the skin over it became hot, red, and œdematous, the nipple became free and erect, and we found an abscess exactly like the abscess in the first case.

The adhesion of the skin and the retraction of the nipple in this second case are of great interest. Two similar cases are recorded in the St Bartholomew's Hospital Reports;[2] in both there was marked retraction of the nipple.

This chronic circumscribed tuberculous abscess of the breast is very different from that more common diffuse suppuration of the breast which attacks feeble women during lactation—those cases where the pus may track and burrow through the breast till it is riddled with sinuses, and the whole breast is swollen, hot, and painful, and the patient suffers from rigors, fever, loss of sleep and of appetite, and loss of flesh. In all such cases we must recognise the need of making early incisions, free and deep and numerous enough to ensure that the breast, all undermined with crooked sinuses, shall be drained up and down, or right across, or wherever a probe can be got to go, and that every sinus shall be drained at the lowest possible level. A small incision, with a little bit of tube sticking out of it like a chimney, is worse than useless. And I know of two cases where at last it was necessary to remove the whole breast on account of profuse and intractable suppuration.

I have seen a case where these tracking sinuses followed a blow on the breast of a young unmarried woman; but the breast is not easily excited to suppurate by injury. The worst injury of the breast I have ever seen was in a young man whose horse had seized him over the left breast. The whole breast was black and blue for weeks, and there was a huge extravasation of blood beneath it; but it very slowly subsided without suppuration. The breast was so much damaged and the tension was so great that I made an incision into the mass of blood-clot beneath the breast, expecting to find pus; but it very slowly subsided without suppuration. Blows and bruises on the breast are common enough, but they are seldom followed by suppuration.

Hypertrophy.—Of that very rare disease, true hypertrophy of the breast, I have seen only one well-marked case, on which Mr. Thomas Smith operated some years ago. The patient was a young woman, twenty-three, unmarried; both breasts were enormously enlarged, one weighing six pounds and the other eight. The overgrowth was partly diffuse and ill-defined, partly collected in well-defined encapsuled masses, some of them as large as cricket-balls. He removed both breasts in the same operation, nor was the hæmorrhage so severe as to be dangerous. She made a rapid recovery.

Adenoma.—The ages of my patients ranged from twenty-one to forty-two. The known durations of the growths before operation had a very wide range—from five days to fifteen years. In size they varied from the size of a hazelnut to a growth three inches in diameter. One patient had cystic disease of the other breast. In one case I used cocaine only, but though I put plenty of cocaine under the skin the shelling-out of the little growth caused a good deal of pain. In three cases the growth was at one part of its circumference continuous with the rest of the breast.

Simple cyst.—These cases, like the last, had a very wide range in regard to the age of the patients and the size and duration of the cysts. The largest was about four inches in diameter; it was distended with blood-stained fluid, its walls were hollowed out into pouches and lined with fibrin, and it was on the point of bursting through the thin, raw, livid skin over it. In one case there had been a cyst in the same breast twelve years ago, which had been cured by puncture, followed by the use of Brodie's embrocation. The outline of the cyst in most of the cases was distinct, smooth, and round; but in one or two of them it was ill-defined, or the cyst felt as if it were transversely constricted, or divided into lobes, or nodular. Such cysts as these are hard to distinguish from cancer; but if one can get the cyst down on a rib one may by firm pressure feel that it is elastic. Moreover, a cyst may feel harder at one time than another; it may feel smaller after the patient has rested the breast and applied an evaporating lotion to it; and the skin over a cyst is not adherent, and the nipple is not retracted. It is said that these simple serous cysts of the breast are more common among those who are well off than among the poor; and of my eight cases six were in private, and the two hospital patients were both of them fairly well off. As regards their treatment, the use of Brodie's embrocation after puncture of the cyst is in many cases successful.[3] If this fails the cyst must be dissected out or removed with some of the breast round it; and the breast is so elastic and heals so quickly that after removal of an adenoma or a cyst one need not, in most cases, drain the wound.

Multiple cysts.—I have had three cases of multiple cysts or general cystic degeneration of the breasts. In each case both breasts were affected.

1. A thin, overworked girl; both breasts very flat, thin, and ill-developed. In the right breast, towards its outer margin, was a small, hard swelling, and between this and the axilla was a loose group or chain of similar smaller swellings. In the left breast was a superficial, softish, elastic swelling near the nipple, and a small, hard swelling at the upper margin of the breast.

2. A young woman aged twenty-one; thin, tall, flat-chested. One of her aunts had died from cancer of the breast; one of her sisters had had a cyst in her breast. The patient's breasts were thin and flat; in the right breast were several small, ill-defined nodules about the size of peas, and one about the size of a hazelnut, at the outer margin of the gland. Between this and the axilla, just as in the first case, was a short string of small loose nodules. In the left breast were a few small swellings, and, at the upper margin of the breast, one rather larger than a hazelnut, tense and firm, with a well-marked nodular surface.

3. A woman thirty years of age. Her mother died of cancer of the breast. She herself had suffered from abscess of the left breast, after the birth of a child, four years ago. Both breasts were painful at times and during menstruation. They were both full of small shotty nodules, and in the upper and outer part of the left breast was a nodule about the size of a hazelnut.

The diagnosis of these multiple cysts of the breast rests on the very fact that they are multiple. Usually both breasts are affected. In some cases the patient's age excludes the possibility of cancer. In all the skin, nipple, and axillary glands are healthy. It is curious that in two of the cases the disease extended outward beyond the breast towards the axilla, as if there were some cystic dilatation of the lymphatics here. These cases do not admit of active treatment. I found Brodie's embrocation useful in one case. It is to be noted that, if one of the cysts starts growing, the others do not follow suit; they remain unchanged, while the growing cyst may attain a size that makes it necessary for the surgeon to puncture or remove it.

Sarcoma.—In that vast and complex group of new growths, the sarcomata of the breast, are tumours so mixed in structure, and so uncertain in their rate of growth and in their tendency to recur after removal, that they seem to have little in common, save that they all contain embryonic connective tissue. If this be mixed with fibrous or glandular tissue, we have a fibro-sarcoma or an adeno-sarcoma; if with loose stellate cells, or bone, or cartilage, we have a myxo-, or osteo-, or chondro-sarcoma; if the tumour be made of cysts, stuffed and bound together with embryonic connective tissue, we have an intra-cystic sarcoma, Brodie's sero-cystic disease with intra-cystic growths. Sarcoma of the breast is at first a rounded smooth or finely nodular swelling, softer than scirrhus, enclosed in a capsule, adherent in the breast, perhaps mixed with cysts, which may discharge a reddish serous fluid through the nipple. It may at first have the aspect of a simple adenoma, as in the following cases.

1. A woman had a growth removed from her breast in 1874. The account of it is: "It proves to be a mammary glandular

[2] Vol. xv., p. 57; vol. xxiii., p. 149.

[3] "The application which I have generally made use of is the following: spiritûs camphorati and spiritûs tenuioris, of each three and a half ounces; liquoris plumbi diacetatis, one ounce; fiat embrocatio. I have directed the patient to soak a piece of flannel, once folded, in this embrocation, and to apply it so as to cover that part of the breast in which the tumour is situated, renewing the application six or eight times in the day and night till the skin becomes inflamed, then to omit the application for two or three days, but to resume the use of it as soon as the inflammation has subsided. .... In some cases all that can be desired is accomplished in the course of three or four weeks; in others it must be continued, with occasional intermissions, for some months."—Brodie's Lectures on Pathology and Surgery, London, 1846.

tumour with intra-cystic growths." Eight years later it recurred and was removed. This second growth was sharply defined, but soft and gelatinous; it was not a glandular tumour, but an intra-cystic sarcoma.

2. A woman aged about sixty had been told, many years ago, that she had a mammary glandular tumour. It was not removed, and for eight years it remained no bigger than a walnut, then it began to grow furiously, and in two months the whole of the upper and outer part of the breast was distended with a softish, irregular, circumscribed mass the size of a large orange. Near it lay a smaller, distinct swelling, harder than the rest; this was, perhaps, the original growth.

The swiftness of growth of some of these sarcomata is terrible. I remember one case, a woman aged thirty-eight, where the disease burst through the skin in eight months, and four months later the whole breast was a huge, tense, globular mass, with wide fungating holes in it; the axillary and supra-clavicular glands were infected, and no operation was possible. In another patient, aged thirty-nine, the disease was only six months old, but already the breast had become a hot, tense, globular elastic mass three or four times its natural size, grooved with dilated veins, and very heavy. She had been told it was "hypertrophy" of the breast. In another patient, aged forty-six, the disease had begun as a mass of aggregated cysts, which one by one suppurated and were incised, and finally were removed *en masse;* a few months later the whole breast was distended with a very large, uneven, lobulated, softish sarcoma. The breast was removed, but four months later the disease recurred near the scar of the operation. To these cases let me add two of my own.

1. A woman forty-five years of age a year ago first noted a red, serous discharge from the nipple. Six months ago she found a lump in the breast. There was now a small, deep, ill-defined swelling in the lower part of the breast, and by pressing it one could make thin, red, serous fluid flow from the nipple. I removed it freely, and found that it was made of a few minute cysts with well-defined intra-cystic growths. Two and a half years later there was no recurrence.

2. A woman forty-five years of age found a small nodule in her left breast fifteen months ago and was told that it was "nothing important." The whole breast was now distended with a large globular mass of varying consistence, but everywhere softish, and freely movable on the structures beneath it. I removed the breast and found a voluminous mass, enclosed in a strong capsule; part of it was a large, soft, hæmorrhagic sarcoma, and part of it was made of cysts crammed with intra-cystic growths, some of which were spread over wide areas of the cyst walls; others, soft and gelatinous, like nasal polypi, grew out by pedicles from the cyst walls into the cysts. I removed two enlarged glands from the axilla, but they were only inflamed, not infected. Fifteen months later there was no recurrence.

There are no tumours more interesting than these sarcomata of the breast; they are so curious in their structure, so uncertain in their course; at first they may disguise themselves as simple adenomata or as simple cysts; then they may grow with frightful speed, bursting and fungating through the skin, infecting the lymphatic glands, and in a few months ending in death.

Cancer.—The following notes are made from an analysis of sixty cases of the ordinary form of cancer of the breast. Of these, thirty were my own, and thirty I have had the privilege of seeing or noting in my father's practice or in that of Mr. Thomas Smith.

1. *The age of the patient.*—Out of 642 cases collected by Gross[4] only 18, or 3½ per cent., were under thirty; but 128, or 20 per cent., were under forty. I have had five patients between thirty-two and thirty-six, and three of them were very bad cases. In one the disease had been very rapid and was already past operation; in another it recurred a few months after operation; the third patient a year after removal of the breast was attacked by epithelial cancer of the uterus.

2. *Her family history.*—Though it may be impossible to prove by statistics that cancer is a hereditary disease,[5] we do in practice get cases where the influence of inheritance cannot be doubted, and it is only the difficulty of asking for histories and of getting them that prevents us from proving this beyond all possibility of question. Among my notes there are cases of a patient whose mother and grandmother both had cancer of the breast; a patient whose mother and three aunts all had it; a patient (? cancer) whose two sisters also had tumours of the breast. In two cases the patient's mother had suffered from cancer of the breast. In another case a patient, with a tumour (? cancer) in her breast, had lost three aunts, grandaunt, and grandmother, all from cancer of the breast. Gross found a history of cancer in the family in 40 cases out of 389, or nearly 10 per cent.

3. *History of an injury.*—Among my own cases the best instance was in the case of a woman who, by a heavy fall, broke the neck of her right humerus and bruised the right side of her chest very severely. A few months later she came back with a mass of cancer in that very part of the right breast which had been most injured at the time of the accident. Gross, out of 270 cases, got a history of injury of the breast in 12 per cent.

4. *What first made her notice the swelling in her breast?*—Perhaps she was in the habit of examining her breasts from time to time. Most assuredly cancer of the breast is not at first painful; it presses on no nerve, it sets up no irritation; it has plenty of room to grow in the loose, soft tissues of the breast. Hundreds die every year in misery whose lives would have been prolonged or saved if only the little growth had warned them, by pain, of their danger. "I thought it was nothing," they say, "because it was not painful." In one case a surgeon said: "It is nothing; come back to me if it becomes painful." In another case the swelling was said to be "innocent," in another it was said to be "of a gouty nature," and in two other cases the disease was allowed to drift for months. If only cancer of the breast had a definite pain of its own, like the distinct warning pain of toothache or of pleurisy, we should be saved from making these mistakes. Sometimes it is just the pressure of her stays that makes the patient conscious of something amiss with her breast. In one case a trivial inflammation of the finger, with pain in the axilla, led the patient to examine her breast, and it so happened that she found a nodule of cancer in it. In another case the patient found a diseased gland in her axilla a month before she found the primary disease in her breast: in another case it was only when the breast was hanging down unsupported that the patient felt something wrong with it. But a more common way in which women first notice the disease is, I believe, in the habitual examination of their breasts to see if anything is the matter with them.

5. *How long has she carried her trouble about with her before she could bring herself to ask you about it?*—The answer to this question shows us the terror which a woman may feel who has cancer of the breast; her fear that she may have to submit to what seems to her a mutilation, a sort of loss of sex or of honour. Out of twenty-nine cases where this point is noted only three came within the first fortnight, only six more came within the first three months, and only five came after a delay of more than three months, but less than a year. Fourteen of them carried their sorrows about with them for more than a year; and one kept her secret from a medical practitioner till it was too late to operate, and kept it from those with whom she lived to the very end of her life.

6. *What are the characters of the growth at its early stage?* It may begin as a small, sharply defined, clear-cut nodule; or it may begin as an indolent and ill-defined induration of part of the breast; or it may follow that chronic eczema of the nipple which was first described by my father, and is called by his name.[6] Or, if the patient be pregnant, or lately delivered, the disease may, though this is happily rare, advance with fearful rapidity, seeming to attack the whole breast all at once, filling and distending it everywhere in a few months with a hard, heavy, globular mass of cancer; the skin is hot, red, coarse and œdematous, the veins over it are dilated, and the case becomes hopeless in a few months after the onset of the disease. In this terrible form of cancer there is great danger lest we mistake the case for one of simple inflammation of the breast.

If the disease begins as a small, sharply defined nodule, this nodule may so closely imitate a small adenoma or a small cyst that nothing but a free incision into it will tell us its nature. Again, it may lie so far from the centre of the breast that it may not be recognised as cancer of the breast. I have seen two cases where the nodule lay well outside the margin of the breast. In one case it was placed right over the sternum. In another it was fixed to one of the lower costal cartilages, and had been taken for "periostitis of a

[4] Tumours of the Mammary Gland.

[5] W. H. Cripps, St. Bartholomew's Hospital Reports, vol. xiv., p. 287.

[6] On Disease of the Mammary Areola preceding Cancer of the Gland; Sir James Paget, St. Bart.'s Hosp. Reports, vol. x., p. 87.

costal cartilage." I suppose that in such cases as these the disease really begins in some small outlying bit of the mammary gland; but it disguises this fact so well that one might easily be misled.

If the disease begins as a diffuse, ill-defined induration or toughening of a lobe of the breast, or of part of a lobe, it may be at first impossible to say whether we are dealing with a simple inflammatory thickening or with an induration that is, or will become, cancerous. Let me quote two cases of simple inflammatory thickening:—

1. A single woman forty-five years of age. Both breasts full-sized, slightly nodular. In the upper part of the left breast an induration, very ill defined, shaped like a lobe of the gland, not so hard as cancer; skin, nipple, and axillary glands all healthy. It disappeared after one or two belladonna plasters.

2. A woman thirty-seven years of age. Ten years ago a blow on the left breast; one year ago some transient swelling of the breast. Noticed present swelling a month ago; says it is not so hard now as it was at first, and has become more flat and diffused. In the upper part of the breast is an induration, shaped like a lobe of the gland, hard, but not so hard as cancer; it has a granular feel; it is painful at her monthly periods. Skin, nipple, and glands all healthy.

How may we distinguish these harmless indurations from those that are or will become cancerous? They are less hard, less nodular, less definite; they have more the shape of a lobe of the gland. The skin, nipple, and glands are unaffected. They will subside under treatment in two or three weeks. If they do not, then without further delay we must make a free incision, and act on what we then find.

The following case is of great interest. The patient had simple induration in one breast and cancer in the other.

A married woman thirty-two years of age had suffered from abscess of the right breast after her first confinement and had never been able to nurse with it, but only with the left breast. She now had, in the left breast a nodular, flattish lump, lacking the full hardness of scirrhus, somewhat wedge-shaped, freely movable, feeling very much like a much indurated lobe of the breast; the skin over it was healthy; there was a doubtful feeling of fulness in the axilla. In the right breast, above the nipple, was a hard swelling, but it was not so hard and not so large as the swelling in the left breast, and when I pressed it flat against the chest wall it seemed to become vague and ill-defined. Still, the two breasts were very much alike. But after ten days the swelling in the right breast was nearly gone, while the swelling in the left breast was larger, more nodular, closer under the fingers, and I found it to be cancer, with diseased glands in the axilla.

7. *What is the state of the skin over the swelling?*—There is no more important and sure sign of cancer than the adhesion of the skin over it; with the exception of tuberculous abscess there is no swelling in the breast that causes this early adhesion or dimpling of the skin. It may be a very early sign. I have found it well marked over a small, deep nodule, noted only five days before I saw it, and so freely moveable that I could hardly hold it steady to cut into it before removing the breast. This adhesion of the skin is at first very slight, and may even become less with rest and the use of a lotion. It may not be visible, one may look at the breast in vain; but if we lightly pinch the skin all over the breast we find that over the nodule it is less easily raised than elsewhere, it seems to stick a little, it slips away, we cannot so readily pick up a fold of it between the thumb and finger. It may be visible in one position of the breast and not in another. In one case the surgeon was wholly unable to find anything amiss with the breast, but the patient said: "I'm sure there is something the matter with the breast, and I feel it when I do *so*"; and she swung herself round so that the breast hung down loose with its outer edge on the stretch, and then it was just possible to see a very faint dimpling of the skin, and to feel beneath this a very small piece of toughened gland.

8. *What is the state of the nipple?*—Retraction of the nipple and adhesion of the skin—these are the two grand signs of cancer. Of course, retraction of the nipple may come of itself in a healthy breast; it may be sudden, it may come and go away again. Or a retracted nipple and an innocent tumour may chance to occur together in the same breast. I have seen a breast with adenoma and retracted nipple; but the nipple was retracted eighteen years before the adenoma came. Cancer itself may in the same way arise in a breast the nipple of which was retracted many years ago. But if the swelling in the breast and the retraction of the nipple occur together, then, if the disease is not a tuberculous abscess, it is cancer. And it is worth noting that in cancer the retraction of the nipple is often oblique; it is not pulled back straight, but is dragged down sideways towards the disease.

9. *What is the state of the glands in the axilla and above the clavicle?*—We must never fail to examine the glands above the clavicle as carefully as those in the axilla, for their infection makes operation almost impossible; and we must also be careful to examine the glands on the opposite side of the body. As regards the axillary glands, it is to be noted, first, that there is generally more disease than we can feel; behind those that we feel there are probably others. Next, though the axilla may feel empty, we may find enlarged glands either beneath the lower edge of the pectoral muscle, or half way between the breast and the axilla, or in a line with the axilla, but on a level with the breast. Moreover, no gland is large enough to be felt till it has been diseased for many weeks; that we cannot feel them is no proof that they are not there. Or we may find them only after prolonged patient examination not only of the axilla but also of the whole side of the chest.

Operation.—There are cases, very rare, where aged, feeble, and unhealthy patients have in one breast a growth so slow, shrunken, and painless that we have no right to urge them to submit to operation; and there are cases where the disease is so extensive that operation cannot prevail against it save at an increased risk to the patient's life. In these two classes of cases the decision for or against operation hangs on the wish of the patient and on the temperament of the surgeon more than on statistics. In every case we must make a free and deep incision through the swelling before we remove the breast, and this incision should not be made with the same knife that we use for removing the breast; we must avoid the bare possibility of inoculating our wound. We ought to remove every particle of the mammary gland. I have found, dissecting the breast after removal, small unfelt nodules of cancer far away from the only nodule that was large enough to be felt. We must remove the pectoral fascia if there is one; we may do well to take some of the muscle with it; we must, save in exceptional cases, open the axilla, and not simply shell out the largest glands, but remove the fat, in which the smaller glands lie hidden; we must search beneath the pectoral, and clean the fat and fascia from the serratus. Recurrence means that we left something behind. Heidenhain[7] has proved this to the hilt by examining the under surface of cancerous breasts after removal. He found groups of cancer cells cut across, the other half of each group being left behind; and here the disease recurred. Let us force ourselves to accept this most unwelcome truth, that cancer recurs because, when we operated, we left something behind. It may be said, "How can this be true of those cases where the disease does not recur till very many years have elapsed?" I know cases where the disease did not recur till nine and sixteen years had passed since operation. If some of the disease was left behind at the operation, why did it wait so long before it recurred? To this question two answers may be given.

1. There is no fixed rate of growth for cancer of the breast. In four of my cases the breast had been diseased for five, six, six, and ten years; yet the growth was still small. If a microscopic particle of this sort of cancer was left behind at the operation it might take at least as many years before it became evident.

2. It is just possible that a remnant of mammary gland left behind may become cancerous in later life, though it was perfectly healthy at the time of the operation; but then this remnant of the gland ought not to have been left behind.

As regards the closing and after-treatment of the wound, it is best to use a large number of silk sutures, and not a continuous suture. The sternal end of the wound must not have a tube put in it. If a tube be put in the axilla it must be taken out in twenty-four hours. It is a great relief to the patient, the morning after operation, without disturbing the wound, to remove the tight bandages and the stiff blood-stained cotton-wool, to wash and powder the neck and arm, and put on a cool, smooth sheet of wool and a lighter bandage. And it is important to get her up in bed, and out of bed, as soon as possible.

As regards removal of part only of the breast in cases

[7] Verhandl. d. Deutschen Gesellsch. f. Chir., 1889.

where the growth is small and near the margin of the breast, Mr. Butlin[8] has proved that we are more likely to cut free of the disease all round if we give our whole attention to doing this, and make our incisions with regard rather to the thorough extirpation of the growth than to the formal removal of the breast. And it makes a great difference to the patient, who will thankfully submit to the removal of the disease, though she shrinks from the thought of removal of the breast. But we must give due weight to the chance that the rest of the breast may be diseased; nor is the removal of a large part of the breast a less severe or troublesome operation than the removal of the whole breast; nor is it so easy to make a free removal of the pectoral fascia.

What is the risk of the ordinary operation? Out of twenty-two removals of the whole breast, one of both breasts, and eight of part of the breast, or of recurrent disease, I have had, I grieve to say, two deaths. One was from shock; the patient became much excited after the effects of the anæsthetic had passed off, she screamed and struggled, and then sank and died twenty hours after the operation. The other patient, who was terribly nervous and depressed, became insane.[9] She refused all food, passed into coma, and died on the tenth day. One patient, in 1887, had erysipelas, and her case seems to show how erysipelas may sometimes check a new growth I removed the breast in March, 1886. In October, 1887, I removed some axillary glands and a nodule near the scar. Erysipelas followed; then she remained free from disease, and died more than five years later from failure of the heart. In cases past operation the growth may perhaps be retarded by the injection of a saturated solution of methyl violet. I have used this in two cases of cancer, though not of the breast, and in one of them it seemed to be of some use. In a case of pleural effusion due to secondary cancer of the pleura I aspirated the following quantities of fluid: April 21st, 43 oz; May 1st, 53 oz.; May 12th, 30 oz.; May 19th, 50 oz.; and May 27th, 43 oz. At the time of this last aspiration the patient was so near her end that it seemed almost wrong to do it, but it gave her great relief, and only a few hours before she died, three days later, she was asking to have it done again. She used to drop asleep after each removal of the fluid, as one sees patients drop asleep after tracheotomy. I have seen the same sudden sleep in a case where I had occasion twice to puncture the intestine for the relief of acute dilatation of the colon. With regard to caustics, I have used them in two cases only. In one the patient is, I believe, still free from disease, five years and a half after operation; in the other the disease recurred in a few months.

THE STARTING POINTS OF TUBERCULOUS DISEASE IN CHILDREN.[1]

BY J. WALTER CARR, M.D., M.R.C.P. LOND.,
ASSISTANT PHYSICIAN TO THE ROYAL FREE HOSPITAL AND TO THE VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

IN the tuberculous diseases of adults three points stand out in sharp contrast with those of children: the first is the enormous predominance of phthisis, or, to use a more accurate term, of pulmonary tuberculosis; the second is the comparative tendency to localisation of the disease, usually in the lungs, as compared with its marked generalisation in children, for even when pulmonary tubercle is complicated with laryngeal and intestinal lesions these latter must be regarded simply as local and secondary infections and not as due to any general dissemination; the third is the very subordinate part taken by the lymphatic glands in adult tuberculosis as compared with their immensely important *rôle* in children. To a very large extent tuberculous disease in adults means tuberculous disease of the lungs, so frequent is the occurrence of phthisis, so comparatively rare are the other forms of tuberculosis apart from pulmonary disease; for even when tuberculous meningitis, acute miliary tuberculosis, or tuberculous ulceration of the bowels do occur, they are commonly secondary to some primary lesion in the lungs. As Dr. Wilson Fox[2] puts it: "Louis's law that after puberty the lungs are almost invariably found affected when any other organ suffers has received to the present day the nearly universal assent of all observers. The point also noticed by Louis, that the lungs are equally, if not more, affected than any other organ, has been verified, at least for adults, to a nearly equal degree." Moreover, in adults the disease runs a fairly definite course, commencing at one apex and spreading downwards with more or less rapidity. In children, on the other hand, pulmonary tuberculosis, though sufficiently common, is only one of the many forms in which tubercle may attack them, and certainly occupies no position of commanding prominence over tuberculosis of other parts; it is, moreover, not very often primary in the lungs, and when it does occur, does not progress nearly so definitely from apex to base. Secondly, as to the dissemination of tubercle in children. I have notes of 120 necropsies made at the Victoria Hospital, Chelsea, upon children suffering from tuberculous lesions, and in no less than 82 the disease was more or less generalised, by which is meant that the tuberculous lesions found were not merely the result of simple extension by continuity, or of direct infection from one part to another, as of the bowel from the lung, but that either miliary tubercles were present in several or in most of the organs, indicating a common simultaneous origin from some infective centre, or else that there were several quite independent tuberculous centres in different parts of the body. In 13 of the 120 cases glands alone were implicated, in 13 more death had occurred from some other cause, whilst the tuberculous lesion was still limited to one organ, and in only 12 children (five of whom were over five years of age) had a localised tuberculous process been the actual cause of death. The *rôle* of the lymphatic glands in the tuberculous diseases of childhood will be discussed fully later on. It ought to be premised that my remarks refer mainly to young children; no hard and fast line can be drawn as regards age, but undoubtedly the distinctive characters just mentioned are most marked in infancy, and tend more and more to approximate to the adult type with each year of life, certainly after five years. Fifty-three of my cases were under two years of age, and only 20 over five years.

It is evident that the study of tuberculosis in children is in many respects a much more complex matter than it is in adults. In the latter the bacilli enter in probably the great majority of cases with the air in respiration, find a lodgment at or near the apex of the lung, either in the air vesicles or in the pulmonary absorbents, and there start a definite lesion, which, when it ends fatally, does so usually from the extent and severity of the local process. So far the etiology is comparatively simple; but in children, and especially in infants, the germs seem to obtain access in several different ways, to start the primary lesion in many different organs, and ever to tend to set up general infection through the lymphatics or blood stream. According to Dr. Burdon Sanderson[3] one-third of the young children who die in hospitals die from tuberculous diseases, and statistics, worked out by Dr. Sturges[4] from the post-mortem records of the Children's Hospital, Great Ormond-street, and by myself from those of the Chelsea Children's Hospital,[5] give practically the same result. In view of a mortality so enormous it becomes obviously a matter of the greatest importance, from the point of view of prophylaxis, to ascertain in what way the bacilli usually obtain entrance, and in what part is usually situated the primary focus whence infection is so apt to spread into all parts of the body. With this object I have carefully gone through the post-mortem records of the 120 cases before mentioned, and have endeavoured to ascertain as accurately as possible in each where the disease actually started. In only four cases of generalised disease was no centre discovered. Its apparent absence in such a small number affords no ground for supposing that none existed; when we see how small and difficult of detection it often is, how it may be merely a slightly enlarged caseous gland, or a minute focus in bone, no wonder that in a small percentage of cases it is never found. In 11 instances caseous centres existed in several and widely separated parts of the body, and it was not possible to say which was the primary lesion; in fact, it seems only reasonable to suppose that multiple tuberculous affections in the same subject may be sometimes altogether independent of one another. Dr. Fagge[6]

[8] Operative Surgery of Malignant Disease, 1887, p. 386.

[9] The danger of insanity after a surgical operation is a very real danger, and one that is likely to increase. I have had two other cases, one after nephrotomy and one after colotomy. There is a very valuable paper on this subject by Mr. Clinton Dent.

[1] A paper read before the Medical Society of London, May 7th, 1894.

[2] Diseases of the Lungs and Pleura, p. 600.

[3] Transactions of the Hygiene Congress, 1891: Proceedings of Section II., p. 184.

[4] THE LANCET, Nov. 17th, 1888.

[5] International Medical Magazine, 1893, p. 498.

[6] Principles and Practice of Medicine, third edition, vol. i., p. 329.

recorded several such cases. In 13 children the tuberculous mischief was confined to the glands—in 7 to the bronchial, in 5 to the mesenteric, and in 1 in both sets. Ninety-two cases are left: of these the mischief apparently began in or was limited to the bones or joints in 7 (including 3 of middle-ear disease), in 47 it probably commenced in the thoracic glands, in 13 in the lungs, in 8 either in the lungs or the thoracic glands, in 6 the starting point seemed to be in the intestine, in 7 in the mesenteric glands, in 2 in the cervical glands, and in 2 in the kidney.

The tuberculous disease was, of course, not generalised in all these cases, though in only a few was it limited to one organ or cavity, but this does not affect the object of the inquiry, which is to ascertain, not how the disease terminates, but where it begins. As a matter of fact there is, in children at any rate, no hard and fast line between the local and general varieties of tuberculosis; acute miliary tuberculosis may be set up by one small caseous gland, or, on the other hand, it may develop in a case of advanced pulmonary tuberculosis which by itself would soon have proved fatal; in some cases we find every organ thickly studded with tubercles, in others a few scattered miliary tubercles are to be detected in some organs only.

The figures given above certainly do not at all adequately represent the frequency with which tuberculosis starts in the joints or bones and in the external glands, especially the cervical; for as these parts are accessible to operation the disease is with increasing frequency removed by surgical interference before by affecting internal organs it has time to bring about a fatal issue. Moreover, those cases of joint disease which do badly are not likely from their chronicity to die in a general hospital; whilst caseous cervical glands seem rarely to be a starting point for general infection, as Mr. Pridgin Teale[7] has put it. "In most instances disease of the cervical glands, whatever its origin, is practically a local disease, and needs to be dealt with by local measures, and it is but rarely the expression of a general constitutional defect." Possibly this is connected with the fact that bacilli seem to be few in the scrofulous glands of the neck.[8] This reservation being made, the most striking facts elicited by the above figures seem to be: (1) the enormous proportion of cases in which the disease starts in the glands; and (2) the great preponderance of primary disease in the chest as compared with the abdomen. We have 13 cases in which the disease was limited to the glands and 57 in which it seemed in all probability to have started in them—viz., in the thoracic in 47, in the mesenteric in 7, in the cervical in 2, and either in the thoracic or mesenteric in 1. In addition to these 70 cases, there are 8 others in which it had started either in the lungs or the thoracic glands, whilst in 9 of those in which no one primary centre could be certainly determined on there seemed to be a considerable probability at least of its being in the internal glands. Thus of 120 cases there are 70 (58·3 per cent.) in which glands were almost certainly the primary focus of infection, and 17 (14·2 per cent.) in which they were so with considerable probability. If, however, we divide the cases according to age, the important part taken by the glands in the tuberculous affections of early childhood becomes even more marked, for in those under five we find glands to be almost certainly the primary focus in 64·5 per cent., whilst in those aged five years and upwards they were so in only 37 per cent. The special incidence of primary glandular infection on the earlier years of life is well shown in the following table:—

	Cases.	Primary focus in glands. Almost certain.	Doubtful.	Total.	Per cent.
Under 1 year	28	19	4	23	82·1
Between 1 and 2 years	25	16	7	23	92·0
,, 2 and 3 years	16	10	4	14	87·5
,, 3 and 4 years	19	12	1	13	68·4
,, 4 and 6 years	12	7	—	7	58·3
6 years and over	20	6	1	7	35·0
Total	120	70	17	87	72·5

As regards the commencement in the thorax or abdomen, there were 79 cases (65·8 per cent.) in which the disease most probably started in the lungs or bronchial glands, 20 (16·7 per cent.) in which it seemed to have begun in the intestines or mesenteric glands, and 6 in which it was not possible to decide between the two.

Now, if we were dealing only with cases of advanced caseation in the bronchial or mesenteric glands, with more or less tuberculous mischief in the lungs or intestines respectively, it might easily be objected that the disease was, after all, merely secondary in the glands; for it is well known that, once started in them, tuberculous infection will often progress to caseation much more rapidly than in the organ primarily affected. There are, however, several objections to such a view. In the first place, we find many cases in which the glands alone are affected, the most careful search failing to reveal the slightest indication of any lesion in the organ with which they are connected. In other instances, again, we have evidence of a condition certainly extremely rare in adults—viz., extension of the tuberculous affection from the glands to adjacent organs. In young children this seems to be by far the commonest way in which destructive tuberculous disease of the lung occurs; it was long since described by Dr. Charles West[9] under the term "bronchial phthisis," and is also well described and illustrated by Dr. Ashby and Mr. Wright.[10] In these cases we find advanced caseation of the bronchial glands round the root of a lung and similar smaller glands embedded in the lung substance; the latter soften and discharge their contents into the bronchi, leaving small cavities. The disease advances by continuity into the adjacent lung tissue, until at last the lung, or at least one lobe, for some distance round its root is converted into a caseous mass riddled by small cavities; further out isolated caseous nodules are met with, evidently of more recent formation, whilst the apex and peripheral parts of the lung are either perfectly healthy or contain only scattered tubercles. A more complete contrast with the appearances presented by the ordinary phthisical lung in adults, in which the mischief starts at the apex and gradually spreads downwards, and in whom even secondary infection of the bronchial glands probably occurs in only from 30 to 40 per cent. of the cases, can hardly be imagined.

Of course, in many advanced cases in which the disintegration of the lung is very extensive it may not be possible to say definitely where the starting point was; but whenever in children we find changes most advanced at the root of a lung we may, I believe, very fairly assume that the glands formed the starting point in the manner just described, for in a series of post-mortem examinations every intermediate step can be traced, from the commencement in the glands onwards to complete destruction of the lung, and, short of the unattainable possibility of watching the progress of the disease in a single case, no better testimony can be adduced. The clinical evidence is also corroborative; advanced pulmonary tuberculous disease in young children is often overlooked, because the physical signs are absent in the usual position and can only be detected on careful examination in the interscapular region over the root of the lung. In some cases, no doubt, rapid and diffuse caseation of a lung is brought about by rupture of a softening gland into a bronchus and inhalation of the infective products into the bronchioles; the extensive resultant mischief would tend to mask the primary causative lesion. Several such cases of pulmonary tuberculosis starting in the bronchial glands I have described at length in a paper in the *International Medical Magazine* for July and August, 1893.

Probably all observers will readily admit not only the possibility, but also the frequency of primary glandular affection and will endorse the words of Dr. Burdon Sanderson at the Hygiene Congress of 1891:—"The bacillus is capable of finding its way into the lymphatic system without leaving behind it any appreciable traces of its presence at the portals by which it has gained admission." Cornil and Babes[11] have shown by experiments that bacilli introduced into the intestine of the guinea-pig can pass through the epithelial covering without the epithelium being injured, and are diffused in the tissue of the mucous membrane; they enter very rapidly by the lymphatic channels into the mesenteric glands. The same observers[12] state also that they have followed, in tuberculosis of the pharyngeal mucous membrane, the passage of bacilli between the intact epithelial cells covering the

[7] Brit. Med. Jour., vol. ii., 1893, p. 1142.
[8] Les Bacteries, Cornil and Babes, third edition, vol. ii., p. 411.
[9] Diseases of Childhood, seventh edition, p. 52.
[10] Diseases of Children, second edition, p. 22.
[11] Les Bactéries, vol. ii., p. 423.
[12] Ibid., vol. ii., p. 357.

mucous membrane. But a far more difficult question at once presents itself. Is the infection of the glands always or usually direct through the lymphatic channels from the particular organ or area of skin with which the glands are connected; or is the infection indirect through bacilli circulating in the blood stream, and lodging and developing in any glands which happen to present a favourable soil by reason of their being in a condition of irritation and hyperplasia? The question is an important one to decide, for if primary glandular infection were usually due to bacilli in the blood stream which had obtained entrance in some distant part, as for instance, if caseation in the bronchial glands were often set up by bacilli entering through the intestine, or *vice versâ*, it would be almost impossible to find out the most frequent points of entry, the situation of the primary focus would be largely a matter of chance, and, at any rate from a practical standpoint, would be of comparatively little importance. Nor, in such a case, would experiments on animals be likely to give results applicable to man, for the conditions would be entirely dissimilar. We should experiment on presumably healthy animals, in whom, therefore, if infection was set up at all, it would be either local—at the point of introduction—where the poison would be most concentrated, or else at some one part peculiarly prone to acquire the infection, a part or organ which would probably be the same for each species of animal experimented on. On the other hand, when infection through the blood stream occurs in children, it occurs in those with so-called scrofulous tendencies, in whom groups of glands are already predisposed to receive the infection, and, therefore, no matter where the point of entry may have been, the bacilli might attack in one case the bronchial, in another the mesenteric, and in a third the cervical glands, according to which set was in the most unhealthy condition. Conclusions drawn from post-mortem statistics and appearances can, then, only be of value if we may assume that at any rate a primary lesion in the mesenteric glands usually means infection directly through the intestines, and one in the bronchial glands infection through the lungs. Are we justified in making this assumption?

Infection of the external lymphatic glands certainly seems at times to occur through the blood stream. Dr. Ashby[13] strongly supports this view; he says: "Tubercle bacilli presumably enter with the breath or in the food, and find their way into the blood current, starting a tuberculous process in those parts only which are in an inflammatory or unhealthy condition." Undoubtedly, a non-tuberculous lesion—e.g., a patch of simple eczema or a carious tooth—is often followed by caseation of glands, but in such a case the bacilli may enter at the primary seat of lesion without infecting it; but Lebert[14] states that in 158 cases of primary external gland affection 77 had no complication not even a skin eruption. This apparently primary glandular caseation seems to occur most frequently in the cervical glands, and it is very probable that the bacilli obtain entrance through an unhealthy naso-pharyngeal mucous membrane, and especially through the tonsils, more often than is generally supposed, for tubercle bacilli have actually been found in the crypts of the tonsils. Still a residue of cases must probably remain, explicable only by infection through the blood stream, and the possibility of this is strongly supported by the many cases of tuberculous joint disease which follow upon a slight injury; in these the infection can only conceivably come from bacilli circulating in the blood and lodging in the damaged part, and we have a somewhat analogous example possibly in the readiness with which a trivial injury will set up an acute gouty arthritis in a predisposed subject. There is, moreover, direct experimental evidence in favour of this view, for Dr. Burdon Sanderson says: "My own early experiments showed me that peribronchial nodules were among the most constant and the earliest of the lesions in artificial tuberculosis of guinea-pigs as produced by subcutaneous inoculation. In this case the virus is unquestionably not inhaled, but brought to the affected organ by the blood stream." On the other hand, in whatever way the external—i.e., practically the cervical—glands acquire the tuberculous infection, and with them just now we are not so much concerned, it does seem most improbable that, as a general rule, the internal glands should be infected through the blood stream. Here, however, another important question at once arises, Do the bacilli which enter the body through the lungs or intestines pass at once into the blood current, or do they usually or always get into the lymphatic channels? If the former, infection of the glands through the blood must be common; if the latter, it is most improbable that bacilli should pass harmlessly and unharmed into the blood through one set of lymphatic glands, subsequently to infect another set.

Now, so far as I am aware, we cannot deny the possibility of direct entrance into the bloodvessels, but all the available evidence seems distinctly to show that entry by the lymphatics is, to say the least, the more usual. We know that to find a tubercle bacillus in the blood is a thing unknown, except in very rare instances and in cases of generalised tuberculosis, and if bacilli were often present there, surely general infection would be more frequent than it is. The well-known fact that pigment granules are conveyed through the lung and distributed to the bronchial glands by the lymphatic channels suggests very strongly that bacilli would follow the same course, and subcutaneous injection of a region with tubercle bacilli causes first tubercles or tuberculous abscess of the connective tissue and then lesions of the neighbouring glands.

In 1884 Baumgarten[15] showed that a couple of ounces of milk, to which a pure culture of the tubercle bacillus had been added, were sufficient to produce characteristic tuberculous lesions in the intestine of a rabbit, and that with the utmost precision and certainty, and other observers have found that the milk of tuberculous cows produces tuberculosis of the alimentary tract or of the mesenteric glands. These experiments are of the greater importance because if primary tuberculosis of the intestines or mesenteric glands be set up at all by direct infection, it is undoubtedly mainly by the agency of milk. Wesener found that an injection of tuberculous sputum into the stomach failed to produce ulceration of the bowel, but the mesenteric glands were infected, whereas injection of the sputum directly into the bowel caused intense tuberculosis of the gut. The clinical evidence is corroborative; in the great majority of the ordinary cases of phthisis it will probably be admitted that the infection is brought directly by the inspired air; still stronger is the evidence in the intestinal tuberculosis secondary to phthisis; this is without doubt due to the swallowing of infectious sputum, direct infection of the bowel being the very frequent result. It would seem, therefore, that we may fairly conclude: (1) that a primary lesion in the lungs or intestines means a direct local infection; (2) that bacilli may pass through the lungs or the intestinal walls without producing any recognisable lesion, and that they then, at least as a rule, enter the lymphatic channels and not the bloodvessels; and (3) that a primary tuberculous lesion in the mesenteric or bronchial glands is due usually to bacilli which have entered through the intestine or lung respectively, and not at some remote point. Even though caseation of the cervical glands may more often be due to infection through the blood, yet its frequency in them, as compared with its rarity in the axillary and inguinal glands, strongly suggests that direct infection is the more common. Of course the miliary tubercles or minute ulcers found in the intestines, glands, and all parts of the body in general tuberculosis are obviously due to infection through the blood.

I shall pass on now to the important question of the relative frequency of primary infection in the thorax and abdomen respectively, or, in other words, How do tubercle bacilli usually obtain entrance into the bodies of young children? In my 120 cases I found caseous bronchial glands in 96 cases, 80 per cent.; caseous mesenteric glands in 65 cases, 54 per cent.; tuberculous disease of the lungs in 90 cases, 75 per cent.; tuberculous disease of the intestines in 66 cases, 55 per cent.; mesenteric glands alone caseous in 5 cases. These figures, however, expressing merely the actual presence at the necropsy of tuberculous disease of the parts mentioned, very inadequately represent the preponderance of primary disease in the thorax over the abdomen, for in the great majority of cases the tuberculous process was more advanced in the thoracic than in the mesenteric glands, and in the lungs than in the intestines. For instance, in the 66 cases in which the bowel was involved, in only 17 were the ulcers large and evidently of old standing, and in many even of these the primary focus was obviously situated elsewhere, often in the lung, for in eight there were extensive pulmonary cavities, and children must naturally be peculiarly prone to secondary

[13] Keating's Encyclopædia of the Diseases of Children, vol. ii., p. 147. Article, Scrofulosis.

[14] Klinik der Brustkrankheiten, ii., pp. 162, 372.

[15] Ueber Tuberkel u. Tuberculose, p. 113.

intestinal infection from swallowed sputum owing to their inability to expectorate. In many cases the intestinal lesions were a part simply of a general tuberculosis. The same observations hold good with regard to the glands; advanced and extensive softening was found far more commonly in the bronchial than in the mesenteric. Without going further into detailed figures, let it suffice to repeat the conclusions already given that in 79 of the 120 cases the disease probably started in the thorax, in 20 in the abdomen, and in 6 either in one or the other cavity. Dr. Sims Woodhead[16] has discussed this question, and, from an analysis of 127 necropsies on tuberculous children, inclines to the belief that the primary focus is most frequent in the mesenteric glands, especially in children between one and five and a half years of age, the years during which cow's milk must form so important an element in their diet. In his 127 cases he found caseous bronchial glands in 96 cases, 75 6 per cent.; caseous mesenteric glands in 100 cases, 78 7 per cent.; mesenteric glands alone caseous in 14 cases.

The percentage of cases in which the bronchial glands were involved is much the same as in my series, but Dr. Woodhead's cases are remarkable for the very large proportion of mesenteric gland disease. Other observers have recorded figures more nearly approximating to my own. Thus Rilliet and Barthez[17] found the bronchial glands affected in 79 per cent., and the mesenteric in 46 per cent.; and Simmonds[18] the bronchial and tracheal in 73 per cent., and the mesenteric in 46 per cent.; whilst Dr. Walter Colman,[19] in an analysis of the distribution of tubercle in abdominal tuberculosis from necropsies at the Great Ormond-street Children's Hospital, found a smaller proportion of mesenteric (66 per cent.) and a larger one of thoracic gland tubercle (79 per cent.) than in Dr. Woodhead's cases, and he notes that in 12 cases in which the intestinal ulceration was extensive he found advanced pulmonary tuberculosis, with cavities in no less than eight; but I would repeat once again the really important point to ascertain is not the proportionate frequency of caseation in particular glands, but in which group is the process most advanced—i.e., in which did the disease first start—and on this point I would simply endorse absolutely the following words in Dr. Colman's paper: "While not doubting the infection by milk in some cases, I am led to attach more importance to the condition of the thoracic lymphatic glands, as the process was more advanced in them, as a rule, than in the mesenteric glands, and in several they were extensively caseous when the mesenteric glands showed little or no change."

It might be argued that tuberculous lesions in the abdomen, particularly in the mesenteric glands and peritoneum, are more frequently recovered from than similar lesions in the chest, and that, therefore, fewer examples of the former are found on the post-mortem table; but, if this was so, then amongst those in whom tuberculous disease is discovered accidentally, death having occurred from some other cause, we should expect to find an undue proportion of abdominal mischief; but so far from this being the case, I find amongst my cases that in 13 children showing glandular lesions only the bronchial glands were affected in 7, the mesenteric in 5, and both sets in 1 case; whilst in 13 with other tuberculous lesions, not actually the cause of death, in 5 the chest only was affected, in 2 the abdomen only, and in 6 both cavities, but 2 of the latter were practically ordinary cases of phthisis in girls of eight and twelve years respectively, in whom the intestinal ulceration was obviously secondary to the pulmonary. Thus, of a total of 26 cases we have thoracic lesions only in 12, abdominal only in 7, and both in 7. Certainly, so far as they go, these figures do not support the idea that the frequency of abdominal lesions is under-estimated on account of their more usual recovery. The excessive incidence of tuberculosis on the thoracic over the mesenteric glands favours the idea that the bacilli enter the glands directly from the lungs or bowel respectively, for if infection through the blood stream was the more frequent we should expect the mesenteric glands to be affected at least as often and as soon or sooner than those in the thorax, for amongst the improperly fed children of the hospital patient class intestinal catarrhs, leading to proclivity of the mesenteric glands to infection, must be both more common and persistent than bronchial catarrhs, with their ill effects on the thoracic glands, and the glands most frequently irritated in this way would certainly be the most prone to become caseous if the bacilli entered them from the blood stream. Dr. Woodhead lays stress upon the special frequency of mesenteric gland infection in children between one and five and a half years; however, in my cases I found 16 of 28 under one year with mesenteric gland infection, as against 37 of 65 between one and five years of age, or almost exactly 57 per cent. in each period. As a matter of fact, I do not think that much distinction as regards food can be drawn between the different ages, for probably hardly any of the children under one year had been fed exclusively, and many probably hardly at all, from the breast.

The most important general conclusions to be drawn seem to be these: 1. That tuberculous disease in children commences usually in the glands, the liability being at its maximum during infancy and early childhood and rapidly decreasing in later childhood. That caseous glands, especially the internal ones, may (*a*) remain quiescent for an indefinite period; (*b*) start tuberculous mischief in adjacent parts, especially the lungs, by direct extension; and (*c*) set up general miliary tuberculosis. 2. That the internal glands, at any rate, are probably most often infected directly from the organ with which they are connected, although the possibility of infection through the blood stream must not be forgotten. 3. That tuberculous disease starts much more frequently in the thorax than in the abdomen, and certainly far more often in the thoracic than in the mesenteric glands. We must avoid being misled by the far too frequent use of that much-abused term, "consumption of the bowels," which, as employed by the laity, indicates simply marasmus due to improper food and very rarely any tuberculous lesion. Of course, this does not for a moment throw any doubt upon milk as a possible source of tuberculous disease; on the contrary, experiments on animals have shown that milk containing tubercle bacilli is highly infective, and there seems no reason why the results so obtained should not be directly applicable to man; all I would say is that this does not seem to be by any means a frequent mode of infection as compared with that through the lungs. At the same time the importance attached by Dr. Woodhead, on the basis of his statistics, to the mesenteric glands indicates the necessity of a further and prolonged investigation of the pathological evidence, not in one place only, but in all parts of the country, for the conditions producing tuberculous disease may vary materially in different localities. 4. That glandular disease may often exist alone and quite unsuspected; in very many cases, doubtless, it is quite impossible of diagnosis; still, in dealing with obscure febrile conditions in children it is well to realise the very definite possibility of the symptoms being due to caseation in glands, to make every effort to discover their existence, and to use appropriate medicinal and climatic treatment. The condition is one which, not being in evidence, is very apt not to be thought of, and if not borne in mind will certainly never be diagnosed. 5 But, after all, by far the most important treatment is the prophylactic. We may aim at excluding sources of infection in milk, raw meat juice, &c., and, still more important, in the air; but, do what we can, under present circumstances bacilli must obtain access—they are probably too omnipresent to be excluded. We must therefore increase the resistant powers of the system to their entry, above all by keeping the mucous membranes healthy. Whether the glands get infected directly through the lymphatic channels or indirectly through the blood stream, the organisms must in every case have passed in through the mucous membrane, and through a healthy one they probably cannot penetrate. We have, therefore, to try to prevent gastro-intestinal and respiratory catarrhs, and especially to avoid their becoming chronic; to deal promptly with, and if possible to prevent, rickets, the great cause of such catarrhs in early childhood; and to take especial care of children during convalescence from measles, whooping-cough, and other acute specific diseases, so liable to depress the vitality of the body generally, and the resistant power of the mucous membranes, as well as the filtering power of the glands, in particular.

For the present, by proceeding on such lines, we are most likely to check the enormous mortality from tuberculous diseases during infancy and childhood. We can probably do more by efforts to provide an unsuitable soil than by

[16] Lectures on Tuberculosis and Tabes Mesenterica, THE LANCET, July 14th and 21st, 1888.

[17] Maladies des Enfants, third edition, vol. iii., p. 846.

[18] Beitr. z. Statistik und Anatomische Tuberculose im Kindesalter, Diss. Kiel, 1879.

[19] Brit. Med. Jour., vol. ii. 1893, p. 740.

trying to exterminate the germ, although, to a large extent, the conditions which lower the resistant power of the body are also those under which tubercle bacilli are most likely to be abundant.

Bloomsbury-square, W.C.

A GROUP OF CASES OF HEPATIC ABSCESS, WITH SOME REMARKS ON THEIR DIAGNOSIS AND SURGICAL TREATMENT.

BY CHARLES A. MORTON, F.R.C.S. ENG.,

SURGEON TO THE BRISTOL GENERAL HOSPITAL; DEMONSTRATOR OF ANATOMY, UNIVERSITY COLLEGE, BRISTOL.

I PROPOSE in this paper first to record three cases of hepatic abscess, and then to make some remarks on their diagnosis and surgical treatment.

CASE 1.—On March 8th, 1893, I saw a sailor, fifty-eight years of age, in consultation with Mr. Boyce. The patient had recently returned from Russia and had a history of chronic dysentery. He had previously been in the tropics. Two months before I saw him he had been attacked with rigors, and since then his condition had been one of continued prostration, with repeated rigors, and more lately hepatic pain. A bulging over the lower part of the right side of the chest had been noticed for some days. He was extremely feeble and emaciated—almost dying. There was no decided jaundice. A greatly enlarged liver bulged out the ribs on the right side and presented as a very tense swelling for several inches below the ribs in the right hypochondrium. The dulness extended upwards to the upper border of the fifth rib in front, and to the same level in the axilla and at the base behind. The upper level of dulness in front did not vary with position or descend with deep inspiration. When lying on his right side the axilla became dull nearly up to the top, but the dulness disappeared when he turned on the left side. The breath sounds were normal over the upper part of the lung. The apex-beat was not displaced. Where the liver was bulging under the right lower ribs there was a little œdema of the skin on pressure, but no distinct pointing or fluctuation. The interspaces were, however, flattened. I passed an exploring syringe three inches into the liver, in the ninth interspace, an inch and a half behind the mid-axillary line, and withdrew a syringeful of offensive chocolate-coloured pus. On examining him next day we found there was more fluid in the pleura, the dulness from which disappeared when he turned on his left side, leaving the level of liver dulness as on the previous day. He was in such a feeble condition that an anæsthetic seemed too great a risk, and I aspirated the abscess, hoping that he might pick up enough for a more radical procedure later. The needle was inserted to the same depth as the exploring syringe (three inches), in the ninth interspace, in the mid-axillary line, an inch and a half above the lower margin of the ribs, and a pint and a quarter of pus withdrawn of the same character as before. He was relieved, and felt better next day; but his strength did not return, and he died that night.

Necropsy.—The whole of the right lobe of the liver was converted into an enormous abscess cavity, which extended considerably downwards, where its wall was formed only of greatly thickened liver capsule. It still contained a large quantity of pus. The upper part of the right kidney lay in the abscess cavity, and the colon was adherent to it. The liver was only loosely adherent here and there to the diaphragm and abdominal wall in front, so that on evacuating it, either through the ninth interspace in the mid-axillary line or just below the ribs in front, the peritoneal cavity would have been freely opened. There was a pint of serous fluid in the right pleura, and some recent adhesions about the base of the lung. Extensive dysenteric ulceration was present in the colon.

CASE 2.—This patient, a man thirty-two years of age, was admitted into St. Bartholomew's Hospital under the care of Dr. Church in August, 1882, when I was house physician, and I am indebted to Dr. Church for his kind permission to publish it. The patient was suffering from dyspnœa and cough of ten days' duration, with very fetid breath, but no expectoration. There were signs of a pleural effusion at the right base, the dulness extending up to the third rib in front, and the apex-beat was displaced outwards. The liver extended to below the umbilicus, and both lobes were enlarged; just below the liver was a small, irregular, hard mass, and near the pubes in the middle line was another large, hard, irregular mass, movable and resonant. There was no ascites or jaundice. The temperature was an evening hectic of 102° F. On the second day after admission he coughed up half a pint of very offensive pus, became cyanosed, and died at once.

Necropsy.—The masses in the abdomen were hydatid cysts, and the liver was much enlarged from the presence in it of several cysts, one of which was full of pus, and this communicated through the diaphragm with a large cavity occupying the lower two-thirds of the right lung. It was full of very offensive pus and numerous small free hydatid cysts. The pleura was much thickened around the cavity. The communication with a bronchus could not be made out.

Before the necropsy I made an incision into the chest in the region of the angle of the scapula, evacuating many collapsed (injured) cysts and only a drachm or two of pus. An aspirator or exploring syringe-needle would very likely have been blocked by the contact of the free cysts drawn against the point. Had pus, however, been discovered an empyema would probably have been diagnosed. There was nothing in the case to suggest hepatic abscess. The growths in the abdomen and the enlargement of the liver might have been due to malignant disease associated with a growth on the upper surface of the liver involving the diaphragm and pleura, and causing pleuritic effusion there, the pleurisy accounting for the temperature. The case is, however, a most instructive one, and may suggest the clue to the diagnosis of similar cases in the future. Dr. Osler, in his work on Medicine, says—speaking of suppurating hydatid cysts—"in the only case which has come under my observation the immovable tumours scattered throughout the abdomen, and the great size of the liver, led not unnaturally, in spite of the occurrence of septic symptoms, to the diagnosis of cancer." Possibly now the discovery of the amœba coli in the pus from the lung may be of service in the diagnosis.

CASE 3.—This patient was under the care of Dr. Lockie in the Cumberland Infirmary, where I was house surgeon in 1884, and I am indebted to Dr. Lockie for his kind permission to add my notes of it to these other cases. A woman twenty-six years of age was admitted with dyspnœa and pain in the right side of the chest of six days' duration. There were physical signs of either effusion into the pleura at the base of the right lung or extension upwards of the liver dulness—dulness, absence of breath sounds, and vocal vibrations. The dulness was rather convex and upwards in front and extended higher up there and in the axilla than behind. The liver could be felt below the ribs, reaching the umbilicus, though quite smooth on the surface. The cardiac apex-beat was in the left anterior axillary line. Although at the time the upper border of dulness was convex, yet the pulmonary symptoms, with the great displacement of the apex-beat, suggested pleural effusion, and the lower part of the chest was punctured with the aspirator in several places, but only a few drops of sero-purulent fluid were withdrawn even when a very large needle was used which did not become blocked. After this the dulness in the chest considerably increased and the level became a shifting one with the position of the patient. A fortnight after admission the dulness had reached the first interspace and the middle of the scapula behind. The chest was again aspirated, and this time pus and hydatid cyst walls were withdrawn. An incision was then made between the ninth and tenth ribs in the anterior axillary line and seventy-one ounces of pus and cysts withdrawn. The finger introduced into the cavity could not determine its exact locality. The level of the fluid in the chest diminished after this, but rapidly increased again and she died in less than a week.

Necropsy.—The liver was found firmly adherent to the chest wall and diaphragm. Above, it reached to the sixth rib only. It contained an enormous suppurating hydatid cyst which had been drained. This was the only cyst found. The pleural cavity was full of sero-purulent fluid, but no communication existed with the cyst. There was not even thinning of the cyst wall near the pleural surface of the diaphragm.

This case shows how, as in the previous one, an aspirator needle may get blocked by daughter cysts floating up against the point, and fail to give satisfactory evidence of pus. The extent to which the heart was displaced to the left before

the pleural effusion came on is instructive. Mr. Godlee[1] has recorded a similar case of displacement of the apex-beat.

The great difficulty which we shall encounter in the diagnosis of such cases will be to differentiate between enlarged liver from abscess and empyema limited to the base of the lung. We find physical signs at the base of the right side of the chest with extension of the liver dulness downwards, which may be due simply to upward extension of the liver or to pleural effusion at the right base, pushing down the liver; or, again, we may puncture with the exploring syringe the dull area and get pus and yet be quite misled as to where that pus is, whether in a localised empyema, a subdiaphragmatic abscess, or an abscess in the liver. A large pleural effusion we should not mistake. It is the effusion limited to the base by adhesions higher up pushing down the liver that will give rise to the difficulty in diagnosis; or, again, we may find the liver greatly enlarged upwards from hepatic abscess and a pleural effusion above it as well, as in two of these cases. If the increased dulness upwards is out of proportion to the extension of the liver downwards, we may suspect pleural effusion as well as enlarged liver. If the uppermost area of dulness shifts with the position of the patient, leaving a constant level of extension upwards below, as in Case 1, we may diagnose free fluid in the pleural cavity, in addition to the enlargement of the liver from hepatic abscess. If the upper level of dulness is liver dulness and not effusion, that level ought to be depressed with deep inspiration. It is possible, however, that this depression of the liver dulness in hepatic abscess might be wanting, from adhesion of the liver to the chest wall, as in Case 1. Moreover, in hepatic abscess the local bulging over the lower ribs is often marked, and as Mr. Godlee[2] has pointed out in these cases, when the patient turns on the left side the liver falls away from the ribs and the bulging disappears, unless the abscess be actually pointing. Auscultation may help us very little in distinguishing between pleural effusion and extension upwards of the liver. We can, of course, distinguish between a serous pleural effusion and hepatic abscess by the exploring syringe, but pus may come from either an empyema or hepatic abscess, and the introduction of the finger may not make us certain whether we are above or below the diaphragm. I have in two instances seen, after what was supposed to be the opening of an empyema, the post-mortem discovery that an abscess in the liver had been drained instead. In one case, happily, adhesions had formed, and no harm, but rather good, had been done; in the other no adhesion had formed, and the patient died from peritonitis from leakage of pus into the peritoneal cavity.

What, then, may we have to guide us in these cases? If there is marked bulging over the lower ribs; if the enlargement of the liver downwards is quite out of proportion to the extension of dulness upwards; if there is bulging of the anterior surface of the liver as well as extension downwards; if we can withdraw pus at a level below the level of the pleural cavity, or just above the limit and yet only at such a depth that we must almost certainly have gone through the pleural cavity (which here is only a very narrow space even when full of fluid) into the liver beyond; if an extension of hepatic dulness upwards moves distinctly downwards with respiration; and, lastly, if our patient has been in a tropical climate, and has presented latent symptoms of obscure illness with a rigor at the commencement, and perhaps repeated, then we may suspect, or in the presence of some of these conditions actually diagnose, hepatic abscess. Although we must explore with the exploring syringe in the great majority of cases, exploration is not quite free from risk. In one of Mr. Godlee's cases[3] death resulted from hæmorrhage into the peritoneum from puncture of what turned out to be a leucocythæmic liver. I have lately operated on a case of intra-abdominal abscess which has much impressed me on this point. After opening the abdomen I passed the exploring syringe into the swelling and withdrew pus. Without withdrawing the syringe I then proceeded to stitch the mass to the parietal peritoneum before opening it, but whilst doing so the patient began to vomit and pus leaked out around the needle. It was quickly sponged up, but there is no doubt a little got into the peritoneum, though happily no peritonitis resulted. Now, supposing I had made the puncture through the abdominal wall before operating, the patient might have vomited whilst going under the anæsthetic and the pus have flowed into the peritoneum. The needle of the exploring syringe was quite small, and of course to a certain extent plugged the opening while it remained in it.

I have not said anything about the differential diagnosis of subdiaphragmatic abscess on the right side from hepatic abscess. And I do not see how the diagnosis in most cases can be made before exploration. Dr. Hilton Fagge and Dr. Taylor describe some cases,[4] but they do not aid us in the differential diagnosis from hepatic abscess. Dr. Coupland also has described and referred to cases of sub-diaphragmatic abscess simulating pneumothorax;[5] but where we have gas from perforation of the stomach and intestine forming the "subphrenic pyo-pneumothorax" of Leyden the same difficulty does not exist. Dr. Lee Dickinson and others have lately described more cases of this kind.[6]

The first case clearly shows that with even such an enormous abscess there may not be sufficient adhesion to the parietal peritoneum to allow of drainage without opening the peritoneal cavity. Many of the Indian surgeons do not consider this adhesion necessary for safe evacuation, and do not even attempt to stitch the surface of the liver to the parietal peritoneum. The statistics of one Indian surgeon, Dr. Birch of Calcutta, give eighteen cases in which the abscess was evacuated through the peritoneal cavity with fourteen recoveries, and no post-mortem evidence of peritonitis in the fatal cases. I have, however, seen a post-mortem examination on a case of fatal peritonitis due to evacuation of a hepatic abscess through the peritoneum in mistake for an empyema. Dr. Neil Macleod of Shanghai[7] tells us that he has found from post-mortem experiments that the liver cannot be stitched to the parietal peritoneum without tearing away again; but this has not been the experience of English surgeons in operating for liver abscess.[8] Had my patient not been in so desperate a condition I should have carefully opened the abdomen and stitched the liver to the parietal peritoneum before opening the abscess, for, as Mr. Godlee has pointed out, unless the abscess is actually pointing we cannot be sure it is sufficiently adherent to be certain that the peritoneal cavity is obliterated over it. This would have been a work of some considerable time, and perhaps the method of evacuation through the stretched drainage-tube as recommended by Dr. Manson and Mr. Mayo Robson[9] might have been satisfactory, but it seems to me that the stretched drainage-tube will not be likely to fit tightly for very long, and therefore there will be a risk of infection of the peritoneum after a time. However, the patient was too feeble for anæsthesia, and temporary relief by the aspiration seemed all that could be done at that time. The unsatisfactory nature of aspiration as a means of emptying these large abscesses was shown by the necropsy, though it is very warmly advocated by Surgeon-Lieutenant-Colonel Lawrie of Hyderabad, who has had very good results. In my case the needle was not blocked, and was moved about in the abscess cavity, but was not long enough to reach all the pus. This difficulty might of course have been overcome by altering the position of the patient if one had suspected that the pint and a quarter of pus had not emptied the cavity, and shows that if we wish to obtain thorough evacuation by aspirating we may have to turn the patient into every possible position with the needle at varying depth—a proceeding not always quite safe. A very long cannula would be too long to be manipulated freely in the large cavity.

In the second case the abscess had burst into the lung. What can we do for such a condition? The difficulty of localising the abscess in the liver will be much increased, as local bulging will be absent, and there will not be so marked hepatic enlargement if the abscess which has ruptured into the lung is the only one present. All we can do is to explore in the usual situations for hepatic abscess, and, if we find the liver abscess, drain it. Possibly in a case like this we may diagnose empyema from finding pus in the chest with the exploring syringe, and by evacuating the pus we should drain both the lung and liver cavities together.

Clifton, Bristol.

[1] Brit. Med. Jour., vol. i. 1890, p. 175.
[2] Ibid., vol. i. 1890, p. 63.
[3] Ibid., vol. i. 1890, p. 64.
[4] Guy's Hospital Reports, vol. xix.
[5] Brit. Med. Jour., vol. i. 1889, p. 636.
[6] Ibid., vol. i. 1894, p. 233.
[7] Ibid., Dec. 26th, 1891.
[8] Godlee: Ibid., vol. i. 1890, p. 864. Mayo-Robson: Ibid., vol. i. 1893, p. 737.
[9] Ibid., June 23rd, 1892, April 15th, 1893.

ON THE USE OF COCAINE IN THE TREATMENT OF RHEUMATIC AND OTHER INFLAMMATORY CONDITIONS OF THE EYE.[1]

BY ALFRED SWANN, M.D., M.R.C.S., L.S.A.,
HONORARY SURGEON TO THE BATLEY AND DISTRICT HOSPITAL.

IN the Transactions of the Ophthalmological Society of the United Kingdom, Vol. V., session 1884-85, will be found three papers on Cocaine. In the second of these papers (by Mr. Nettleship) the action of the then new drug was fully discussed, and various possibilities as to what its use might be were suggested. The third paper (by Mr. W. H. Jessop) seemed to enlarge the possibilities for the useful employment of cocaine in ophthalmic practice. The following lines were written long before I had either seen or heard of the foregoing papers, and it was due to the kindness of a friend that I was enabled to refer to the journal to which I have alluded. The results which I am about to cite are, however, an amplification of what Mr. Nettleship and Mr. Jessop have already so ably described, and I venture to think, therefore, that they are worth recording. In both of the papers referred to, the anæsthetic action of cocaine is specially alluded to. Its antiphlogistic action is suggested, its power of reducing tension is clearly made out, and its usefulness in breaking down iritic adhesions is proved. The object of this paper is to show (1) that cocaine is more than a mere temporary local anæsthetic; (2) that it is truly antiphlogistic, acting through the sympathetic and causing constriction of the bloodvessels; (3) that it gives relief in a certain class of cases which are aggravated by atropine; (4) that it forms a very useful adjunct to atropine and prevents the pain which with atropine alone would be inevitable; (5) that it causes diminished tension and may with advantage be used with a small quantity of eserine; and (6) that it is of great assistance in preventing iritic adhesions and in breaking them down when formed.

In the following reports I wish it to be understood that, although in my notes the cases are furnished with the diagnosis I then made, sometimes supported by the opinion of an ophthalmic surgeon, yet I do not mean in any way to dogmatically commit myself to an exact diagnosis. What is perfectly safe for me to say is this, that the eyes alluded to were hot, painful, photophobic, with congested conjunctivæ and very visible vessels in the sclerotic. In most cases there was marked congestion in the ciliary region.

On April 4th, 1888, a female patient aged fifty-five, suffering from an inflamed eye, consulted me. I have the case entered in my notes as one of rheumatic iritis. I prescribed potash, colchicum, and pil. scam. co. every night at bedtime, and drops, thrice daily, composed of liq. atropiæ ♏ xxx, cocain. mur., gr. iij, in ʒij of aq. destill. She received relief from this treatment, but at the end of the week, considering her progress not fast enough, went by my advice to an ophthalmic surgeon in a neighbouring town. At the end of a week she again came to me with the prescriptions, which she had sedulously used. She was worse for the treatment, for her eyes ached greatly after using the drops. The drops were the liq. atropiæ of the British Pharmacopœia. She was put back upon her former treatment, and on the 4th May my notes showed her to be quite well. I saw her on Dec. 12th, 1893, and she told me that whenever an attack of inflammation threatened she got relief by using the cocaine drops. The same year another exactly similar case occurred in a man aged fifty. He also came to me after a week's interval, during which he had used atropine, and used strong language because his treatment had been changed. His case lasted from Feb. 5th, 1888, to March 28th, 1888, when he was able to resume his employment. An identical case occurred in 1892, except that in this case the cornea was ulcerated. On June 10th I was consulted by a patient for what I put down as rheumatic corneo-iritis. This man, desiring to get on quicker, obtained another opinion by my advice. He was treated with atropine and got much worse. The cocaine treatment was adopted again, and he was at his work by Aug. 8th without adhesions and with a clear cornea.

[1] Read before the Leeds and West Riding Medico-Chirurgical Society on April 6th, 1894.

Cases like these leave a deep impression on both mind and imagination, and during the years since 1888 I have treated many dozens of cases on the lines I am now going to mention. The amount of agony caused by inflamed eyes is very great, and my object is to show that in many painful inflammatory conditions of the eye cocaine may be used with great advantage, not only for its immediate effect in relieving pain, but also for the permanent benefit which is derived from it by the lowering of tension and the diminution of congestion which it seems to produce.

The following cases taken from my note-book for 1893 will speak for themselves.

A. B——, fifty years of age, with a rheumatic history, sent for me on Sept. 27th, 1893. On arriving at his house I found him bathing his eye with a lotion and in great suffering. He informed me that he had had inflammation in his left eye for fourteen days and had been practically sleepless on account of the intense pain. For three days before I saw him he had been using a belladonna lotion and iodide of potassium, with unsatisfactory results. The eye was intensely congested, and he could not bear the light. A few drops of cocaine (three grains to the drachm of boracic acid solution) were dropped into the eye, and the treatment repeated every few minutes. In less than a quarter of an hour it was possible to examine the eye, when it was found that there was ciliary congestion, but not very marked, and the pupil responded freely to light and was not discoloured. Vision was not impaired; the congestion seemed to be chiefly in the sclerotic. Huerteloup's artificial leech was then applied, and in the course of half an hour the patient expressed himself as being nearly free from pain. Cocaine, two grains to the drachm, in saturated boric acid solution was ordered to be used if the pain recurred, and five grains of salicylate of soda every four hours. On seeing the patient the following morning he informed me he had slept several hours at a stretch, that on waking he had some pain, which the drops promptly relieved, and that he then went to sleep again. For three nights at about eight o'clock the artificial leech was applied, not that there was any real necessity for it on account of pain, but the patient said it made his eye feel comfortable. On the fourth day I ventured to send without his knowledge some drops composed of fifteen minims liq. atropiæ and two grains of cocaine in one drachm of a boric acid solution. He only applied these drops twice and then said that they were making his eye worse. Cocaine drops were again given and gave rapid relief, and atropine was not used again in this case. The cocaine drops were persevered with until Oct. 8th, when the patient was quite well and resumed his occupation. There were no adhesions.

C. D——, a woman forty-nine years of age, consulted me on Nov. 14th. There was a marked rheumatic or gouty history, and the eyes had become very much worse since the great toe-joint had ceased being tender and painful. She had frequent rheumatic pains in various parts, and very frequent attacks of pain in the eyes. She was astigmatic, but when the pain was absent her glasses suited her admirably. On examination during a period of pain the eyes were found to be hot, and the sclerotic itself appeared pinkish and congested. She had been taking salicylate of soda prior to seeing me and had been using a zinc and boric acid solution for a lotion, but, as she informed me, this latter only aggravated things. She had always to wear blue spectacles in the evening and could neither read nor write. Sometimes she could do a little reading or writing in the morning, but even then her eyes ached and were very painful and uncomfortable. I let her go on with the salicylate of soda mixture and at once prescribed drops composed of two grains of cocaine in two drachms of a saturated solution of boracic acid, to be used thrice daily. After the first day she discarded her blue protectors, and before a week had passed away she forgot to use her drops for days together and would only have recourse to them when she found she had been rather overworking her eyes and they again threatened to be painful. On Dec. 10th I received a letter from her saying she was better than she had been for very many months. One or two attacks of pain had threatened, which, however, were quickly cut short by using the drops.

E. F——, aged eighty-two, was a case of nuclear cataract. On Sept. 26th, 1893, I performed a preliminary iridectomy on her right eye under cocaine. A drop or two of weak solution of atropine was each morning trickled into the outer angle, but she complained that this caused an aching in her eyes. The cocaine and boracic acid solution was substituted and gave perfect relief. She was allowed up at the end of a week, and

the cocaine was stopped for a day, but the eye became much congested, and the patient complained very bitterly of discomfort, so the cocaine drops were again resorted to and continued for twenty-eight days, when the eye had resumed a perfectly normal appearance, and when I extracted the lens: an experience similar to the preceding was again gone through. She can now with glasses read 0·5 Snellen, but keeps the cocaine drops by her, as her eyes frequently become red and congested and the drops give prompt relief.

G. H——, aged sixty-five, was also a female suffering from acute glaucoma (right eye) with intense congestion. She had been having for ten days liq. afropiæ (B P) applied. This case was first seen by me on Nov. 23rd, 1893. Not knowing the nature of the case I was going to see, I had no instruments with me. On seeing the patient there was barely perception of light. I ordered a few drops to be instilled frequently of thirty minims of liq. eserinæ two grains of cocaine, in two drachms of a saturated boracic acid solution. On the following day the patient could count my fingers. The eye was much less inflamed, and the tension was greatly diminished. She declined operation "for the present," as she could "see now," whereas the previous night she was blind, &c., and, moreover, she was now nearly free from pain. In vain did I point out the dangers of her position However, on Nov. 29th I saw her again, and she was then satisfied that the little sight she had in this eye was going, so she submitted to an iridectomy. After the iridectomy a one grain to one drachm solution of cocaine was used for some days, and when I saw her the sight was improving considerably and her eye quiet.

J. K——, a woman aged thirty-five, had, when she saw me on Dec. 23rd, 1893, a large blister on the right conjunctiva, extending from the outer canthus to the margin of the cornea. The conjunctival vessels were enlarged in the blister. A pink and congested patch of sclerotic lay beneath it. Cocaine and boric acid solution was applied twice within ten minutes, during which time the enlarged vessels in the conjunctiva were observed to shrivel up, and the episcleral patch became white and ivory-like. There was no return of blister. This patient consulted me again in January this year, when the same sequence of events occurred.

I could give other examples, but hope that these will suffice for my purpose. The fact I wish to bring out is that cocaine has a direct antiphlogistic as well as an anæsthetic influence upon the parts to which it is applied. During the past year I have used it as after-treatment to the painful and inflamed cavity from whence I had excised an eye; to numerous iridectomies necessitated by injuries to the cornea with prolapsed iris; to painful eyes after operations for strabismus; and to the numerous class of cases included under those I have related, and up to the present time have never seen anything but permanent good result from its employment. I have also used cocaine in many cases where I have been working out refraction by retinoscopy and in protracted ophthalmoscopic examinations, and as a routine practice, if my patients complain of aching from the light from the mirror, I give a five minutes' rest and apply a drop of cocaine solution to my patients' eyes with the immediate result of relieving the tired, aching feeling.

In conclusion, I should like to draw attention to one point. Episcleritis or scleritis is generally, I believe, regarded as a rather rare disease. In a district like this, situated largely on the clay, rheumatic affections of muscles and joints are amongst the commonest diseases of everyday life, and I do not think I should be exaggerating if I said the most common cases one sees are of a more or less acute or chronic rheumatic character. Rheumatism is credited with having a special tendency to attack fibrous structures, and I therefore think it is not improbable that a larger number than we anticipate of inflamed and painful eyes with which we have to deal are of a rheumatic character. Speaking generally, I do not think these cases are much relieved by atropin—in fact, they are aggravated by it; but I do believe that in these cases infinite good may be done by the judicious use of cocaine. One word of caution is necessary. If a weak solution of cocaine (one grain or two grains to the drachm) be used, little or no fear of causing any symptoms of poisoning exists, and no danger need be anticipated of damaging the corneal epithelium. I cannot, however, help feeling that a strong solution—say 10 per cent.—is fraught with a double danger and if used frequently may produce toxic symptoms and serious damage to the corneal tissue.

Batley, Yorks.

A SERIOUS CASE OF

COMPLICATED GALL-BLADDER DERANGEMENT ILLUSTRATING THE BENEFITS OF OPERATIVE INTERFERENCE.

BY SAMUEL KNAGGS, M R C S. ENG.,
SENIOR SURGEON TO THE HUDDERSFIELD INFIRMARY.

A MAN fifty-seven years of age, of anæmic and semi-jaundiced appearance, had suffered from recurrent pains in the hepatic region of a severe and agonising character for over twelve years. These pains were sometimes, but not usually, attended by vomiting, and were followed or ushered in by clay-coloured fæces, bilious urine, and general jaundice. They have been quickly relieved by the subcutaneous injection of morphia, and in their earlier history the relief was followed by rapid convalescence. Of late the attacks have shown a greater tendency to inflammatory complications, and convalescence has been greatly retarded; when, however, it has been established the patient has seemed to be strong and vigorous. But his later attacks have been very serious, more quickly recurring, and have more than once endangered his life. After seeing him in two of these dangerous seizures, which were evidently associated with a localised peritonitis, and deeming that the symptoms all pointed in origin to an impacted gall-stone, I advised him to submit to an operation for its removal. For this purpose, as soon as he was able to be removed, he was admitted into the Huddersfield Infirmary on July 22nd, 1893, and ordered to be kept in bed; nitro-muriatic acid lotion was to be kept constantly over the hepatic region. As a medicine the following mixture was ordered three times a day: tincture of digitalis, seven minims; tincture of nux vomica, ten minims; iron mixture to one ounce. The diet consisted of skimmed milk and beef-tea, lean meat, and dry bread. These were the chief measures employed in preparation for the operation.

He was very anæmic when he came into hospital, and the temperature for the most part was subnormal, but with rest in bed and under this *régime* he improved greatly, and on August 23rd the operation was performed. An incision of about four inches to the right of the rectus muscle exposed a matted state of the intestines in the region below the liver, and the notch, though readily felt, gave no indication either of stone or distended gall-bladder. The surface of the liver exposed seemed quite healthy and free from deposit. On slowly and very carefully detaching the adhesions as closely as possible to the liver, so as to get down to the gall-bladder, a considerable surface was detached and freely separated; and at last a firm pipe-like structure was exposed, which, being opened at its uppermost part, proved to be the remains of the contracted gall-bladder. The tube was empty, and on attempting to pass a probe it went in for a short distance, and then its advance appeared to be obstructed. However, it gradually yielded to gentle pressure and was in this way slowly passed outwards between two and three inches, when its further progress was blocked by a hard swelling, in the centre of which the probe could be fixed. From the sensation communicated through the probe it was evident that the swelling was of a cicatricial character and not an impacted stone. The parts on the under surface of the liver and the sites of the ducts passing into the duodenum were very carefully explored, but gave no indication of the presence of any gall-stone. No appearance of bile followed the removal of the probe, and though the liberation of the adhesions was very free there was no hæmorrhage. To prevent, if it were possible, any soiling of the general peritoneal cavity with gall-bladder secretions, it was suggested by Mr. Lawford Knaggs, who was present at the operation, that antiseptic gauze well sprinkled with iodoform should be packed all round about the gall-bladder, and the ends brought out at the wound. This was done, and it was hoped that any discharge would be soaked up by the gauze, and that the general peritoneal cavity would be shut off by the adhesions which would form between the parts lying in contact with the gauze. The wound was then united by silkworm gut, excepting at the lower part, where the opening was left for the ends of the gauze, and covered with the ordinary antiseptic dressings. The gauze was daily removed and fresh gauze reintroduced for about a week, at each dressing being well packed down to the bottom. During the whole of this time

the temperature kept perfectly normal. The packing was then discontinued and the wound allowed to heal. General improvement set in afterwards, and he left the infirmary well on Sept. 25th.

I saw the patient again on March 3rd, 1894, and he told me that he had had no return of his attacks since he left the infirmary. He went back to his work soon after leaving. He looked very well and said that he had not had such freedom from pain for many years. His weight was then (March 3rd) 11 st. 6 lb.; when he went into the infirmary it was 9 st. 12 lb., and he had then lost about 2 st. in the last twelve months.

The originating cause of the constricted gall-bladder and strictured bile-ducts could not be demonstrated with certainty, but can be inferred with a strong probability. It is to be noted that the stricture was in the cystic duct, and prevented the accumulation of bile in the gall-bladder, which accounts for the contraction of the gall-bladder and the absence of bile therein. The cause of the stricture was in all probability due to a stone, which must have passed through the bile-duct into the duodenum, leaving at the site of its resting-place an ulcerated condition, which in the end resulted in permanent and impermeable stricture. The adhesions were probably formed during the ulcerative stage and prior to the formation of the stricture. The recent attacks of jaundice must be explained by some obstruction to the flow of bile in the common duct; and as no bile was found in the gall-bladder, or stone traced, one cannot suppose that this obstruction was produced by stone. The attacks were sudden, frequent, and varying greatly in severity; it is evident that some condition capable of producing them was very easily brought about. Would not a kinking of the common duct sufficiently explain the phenomena? The adhesions between the structures in the vicinity of the common duct might easily lead to the production of such a condition by the varying and irregular distension of the fixed intestinal coils. If the kinking of the common duct be the correct interpretation of the phenomena observed in this case, it is easy to understand how the separation and keeping apart of the adhesions might have relieved a condition which was often on the borderland of trouble. The prevention of the kinking, the non-recurrence of obstructive jaundice, and his improved digestion and appetite would all explain his general and remarkable improvement. The importance of the bearing of adhesions upon diseased conditions of various kinds has in late years been brought so prominently forward that perhaps there may be some interest in the record of this case.

Huddersfield.

THE "SLEEPING SICKNESS OF WEST AFRICA."

BY C. FORBES, M.D., C.M., D.P.H. CANTAB.

Symptoms.—The victim of "the sleeping sickness of West Africa" (old or young, for this curious and deadly complaint may make its appearance at any epoch of life, though it is more commonly found between the ages of twelve and twenty years, and is more often seen in men than women) gradually gives way to somnolence, which becomes at last a profound and lethargic sleep, the first noticeable signs of which are a visible and persistent drooping of the eyelids of man, woman, or child in the daytime while at work, enlargement of the glandulæ concatenatæ and other cervical glands at the onset. The general health of the negro at first seems to be fair, though he gradually appears to give way to sleep at unusual hours. This tendency to drowsiness and torpor can be combated to a certain extent at the outset by stimulation and purgation; but the patient thus aroused from this lethal slumber, which truly recalls the words of Homer, *ὕπνος καὶ θάνατος τὼ διδύμω ἀδελφώ*, nevertheless relapses almost infallibly again and again into this somnolent condition, the periods of sleep increase in number and the intervals between them lessen, their extent proportionally lengthening. This state of things continues while the malady steadily gains ground; soon the negro appears to be always asleep, bearing semblance in his life—I should, perhaps, say existence—to insensitive and fungus-like development only. This condition goes on for a varying period, weeks or months, and he little by little refuses all food, spending his time in slumber. When increasing atrophy sets in, with emaciation, after a short space death from exhaustion and starvation almost invariably occurs at the end of three, six, or twelve months. Here it may be stated that just when moribund the tendency or disposition to lethargy is sometimes in abeyance, and the mental faculties become clear at last previous to their total extinction.

Endemiology.—Its endemic area is West and West Central Africa, from Senegal to the Congo, in the Sierra Leone district, and the *Hinterland*, but cases are more frequently met with and more virulent in their nature in the valley of the Congo. They are also more numerous inland than on the coast line. It has never been known to affect any but the negro race, but has been seen in the West Indies &c. among those who have been brought thither as slaves from the Congo or Sierra Leone districts.

Prognosis.—The prognosis is bad, as the disease once established progresses actively, almost in spite of treatment, to a fatal issue. Guèrin reports 148 cases, the result was death in each. Gore's statistics drawn from Sierra Leone &c. say that there were 80 per cent. of fatal cases, rather underestimating the rate of mortality, I fancy. Personally, my experience extends to only thirteen cases, two of which lived for some time; whether they afterwards succumbed to renewed attacks I know not, but I do know that eleven died.

Pathology.—The results of various post mortem examinations may be briefly noticed as follows, they include morbid appearances visible to the naked eye—viz., hyperæmia of the arachnoid, and slight signs of chronic inflammatory processes going on in the meninges (dura mater and pia mater). Notwithstanding this we find no great accumulation of fluid in the ventricular cavities of the brain or external to it in the sub-arachnoid space, &c. It is worthy of remark that the cerebral substance itself is paler than it should be, pointing to anæmia of the cortical centres. The spleen was enlarged in one of my cases, but this was probably due to malarial taint. There was also definite enlargement in the cervical lymphatic glands with arrest of development of active glandular elements evidently giving rise to, or caused by, some perversion of the quality of the circulating blood. In two cases, examining the blood with the microscope, I found filaria sanguinis hominis; but the appearance of this parasite might be deemed adventitious or only a coincidence, as similar filarians are found in other countries and diseases. Dr. S. Mackenzie,[1] however, ably describes his discovery of this parasite, and Dr. Manson[2] still later in "Davidson's Diseases of Warm Climates," 1893. Cases of patients with organic lesions of the brain tissue have seemed to acquire the peculiar characteristics of this "Congo sleeping sickness," which is a misnomer.

Etiology.—The causation of this curious disease may be said to be wrapped in the deepest obscurity. Many attempts have been made to elucidate it. One suggestion put forth was that it arose from a form of blood poisoning arising from ingestion of a fungus growing on certain grains used by the natives as food, but no absolute proof of this assumption is forthcoming. Nor has change of diet and residence, according to my experience and that of others, had any effect on the steady progress of the symptoms. The complaint is, indeed, involved in mystery, and its problem of causation remains unsolved. The three most acceptable theories are: (1) That it may be due to a septic condition of the blood, borne out by swelling of glands, &c.; (2) is it due, as Dr. Manson was the first to point out, to the presence of filaria in the blood? (3) or it may be (though this is an assumption on my part) a neurosis, eventually affecting the neurotrophic system and causing ultimate emaciation and death: this is somewhat substantiated by appearances and lesions sometimes found post mortem in the brain and its membranes.

Treatment.—This can, of course, be but tentative in the present state of our knowledge of the true cause. I will, therefore, run briefly over remedies which, from personal use, I consider most applicable, taking, as perforce I must, a somewhat empirical view of the subject. At the onset I administer by the mouth compound cathartic tabloids, two at night time; and as stimulant tonics I gave the patients at least twice a day tabloids (hypodermic) of strychnine sulphate ($\frac{1}{50}$ gr.): these I gave subcutaneously when the patient was asleep, varying this with digitalin ($\frac{1}{100}$ gr.) put up in the same form, which is reliable and convenient in tropical practice. These small discs may also be placed beneath the tongue, where they become dissolved quickly, and are almost as rapidly absorbed as when injected subcutaneously. Even when at the last gasp injections of ether over the cardiac area will appear to sometimes rouse our patient.

[1] THE LANCET, Nov. 22nd, 1890. [2] THE LANCET, Oct. 1st, 1892.

The diet should be nourishing and stimulating; when he cannot take food in the ordinary manner it should be given as a rectal injection, two ounces at a time, or in the form of zyminised beef or milk suppositories; at the same time a removal to the coast will probably benefit him. Electricity or galvanism over the spinal column might serve to stimulate the nervous system and rouse him from his apathy. Where there is anæmia, whether malarial or not, the following is useful:—R. Tinctura digitalis ℥ss, tinctura capsici ℥ss, liquor ferri perchlor. ℥ii., aqua chloroformi ad ℥viii.; one ounce to be taken three times a day. It is probable, too, from my later researches on the subject, that tabloids of thyroid gland might be useful in stimulating the cerebral circulation. If Dr. Manson's theory[3] is correct, then the treatment would be by compound sulphur tabloids, as in the treatment of filaria medinensis;[4] still continuing, however, the tonic treatment until success should crown our efforts or death render further attention unnecessary. Before closing, I may state that the treatment of this affection by the native doctors consists in excising the enlarged cervical glands, which apparently influences the disease but little.

St. Augustine's-road, N.W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

EXTRA-PERITONEAL VESICAL HERNIA.

BY W. ARBUTHNOT LANE, M.S. LOND., F.R.C.S. ENG.

ASSISTANT SURGEON TO GUY'S HOSPITAL AND THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

THE following case is of much interest in reference especially to the case recently communicated to the Royal Medical and Chirurgical Society by Dr. Ernst Michels,[1] and particularly as he states that the condition is such a rare one, since only five cases have hitherto been published.

A Hindoo aged fifty-one years was admitted into Guy's Hospital on March 20th, 1894, suffering from a large inguinal hernia on the left side. It was partly reducible, and on examining it carefully it was obvious that the portion that was returnable into the abdomen was of the character of intestine, while the lumpy, bulky, hard mass that remained was probably fatty and adherent omentum. The patient was stout enough to make a more certain and minute examination of the structural details of the hernial sac and its contents impossible. The condition caused him considerable discomfort, from which he was anxious to be relieved. Consequently on April 6th I exposed the upper part of the sac and adjacent surface of the abdominal wall and turned out the whole sac. I then found the following unusual conditions. The hernial sac was covered with large masses of fat, and outside the sac, and lying external to it and slightly below it was a long process as large as a good big thumb and of much the same shape. On squeezing it fluid could be forced into the abdomen, and on relaxing the pressure it quickly filled up with fluid. Its wall resembled in structure that of the normal bladder, of which it appeared to be a protrusion. It was incised at its summit, when the urine, which was known previously to be perfectly healthy, escaped. The finger was then passed into it, when it was found to fit it loosely. The orifice of communication with the bladder felt somewhat narrower than the lumen of the protrusion. The edges of the mucous membrane were inverted and brought together by sutures, and outside this another row was applied. The protrusion was freed from its somewhat intimate association with the hernial sac and was returned into the abdominal cavity. The sac and its lipomatous growths, together with the adherent fatty omentum in its interior, were removed, and the lumen of the inguinal canal and of its external ring was suitably diminished by means of sutures. Though I have found the bladder in the wall of, and forming a part of, a hernial sac on more than one occasion, and in young children have observed it to prolapse readily through the internal ring, I have never seen a protrusion of a permanent form, such as that I here describe outside and practically having no connexion with the wall of the hernial sac. The question of the relative position of the bladder or an outgrowth of it to the hernial wall seems to have been somewhat confused in the reports of the discussion on Dr. Michels' communication.

St. Thomas's-street, S.E.

[3] THE LANCET, Oct. 1st, 1892.
[4] THE LANCET, Feb 24th, 1894.
[1] THE LANCET, April, 28th, 1894.

NOTE ON THE ACTION OF IODINE.

BY DAWSON TURNER, M.D. EDIN., M.R.C.P. LOND.,

LECTURER ON PHYSICS AT SURGEONS' HALL, EDINBURGH.

THE value of iodine as an absorbent has long been known. It is used to cause absorption of enlarged glands, thickenings due to chronic inflammation, and serous effusions, and this action is believed to be due to a stimulation of the lymphatic system. Perhaps the most remarkable results due to the action of a compound of iodine as an absorbent are those which were attained by Major Holmes or Captain Cunningham in the treatment of goitre in India. They recommended that the enlarged thyroid should be smeared over with the red iodide of mercury ointment, and that then the patient should be made to sit with his neck exposed to the rays of the sun or of hot fire for many hours. The results were extraordinary. Sixty thousand natives were treated gratuitously in two years, and a cure was almost always effected.[1] My object in this communication is to offer a suggestion from the point of view of the physicist as to the mode of action of the iodine in these cases. We use iodine in physical experiments to cut off the visible rays of the spectrum. A solution of iodine in bisulphide of carbon will quench the visible rays of the sun, but will transmit the invisible heat rays. The solution is, in fact, remarkably transparent to the heat rays: it is diathermatous. Professor Tyndall in 1868 was, I think, the first to point this out. Now, the fact that Major Holmes found that the action of the red iodide of mercury was much intensified by exposing the patients to the direct rays of the sun has appeared to me to depend upon the physical action of the iodine that I have mentioned. At any rate I offer this as a suggestion. Further, the fact that the *red* iodide is the most efficacious points in the same direction, because the red substance would also serve to transmit the heat rays only. The solar radiation would be filtered by the application, and the gland would be subjected to the full blaze of the calorific rays without the vibrations of its molecules being altered by the visible rays. Professor Tyndall[2] made some experiments with paper reddened by the red iodide and found that it was also highly transparent to obscure radiation; it therefore falls into line with simple iodine. If my suggestions as to the mode of action of iodine be correct, we do wrong in covering diseased parts to which iodine has been applied; we ought rather to expose them freely to the rays of the sun, or, failing that, to those of a good fire.

George-square, Edinburgh.

[1] Quain's Dictionary of Medicine.
[2] Heat as a Mode of Motion, chapter xiii.

CASE OF URTICARIA PRODUCED BY SANTONIN.

BY G. STEWART ABRAM, M.B. CANTAB., M.R.C.S. ENG., L.R.C.P. LOND.

THE following case of urticaria produced by santonin, which has lately come under my notice, appears to me to present interesting features:—

A. B——, a child seven years of age, was brought to me on April 21st, 1894, suffering from thread worms, which, her mother said, had been present for some three years. She had been under treatment once before for this cause, but had not taken santonin on that occasion. There was nothing remarkable in the child's appearance, except that she was rather pale and flabby and had a slight cough. I ordered her santonin powders (three grains), to be taken fasting on alternate mornings for three days, preceded on the previous night by castor oil and followed by a similar dose. She had a dose of castor oil on the night of April 21st and her first powder at 7 A.M. on the 22nd. On this occasion the only sign of any eruption was a red œdematous patch the

size of a five-shilling piece on the left forearm, which was rather irritable and was ascribed by her mother to an insect bite. On the 24th she had her second powder at 7 A.M., by 8 A.M. the face was red and puffy, and in a short time the whole body and the limbs were œdematous and covered with a typical urticarial eruption, consisting of large white wheals surrounded by a broad red areola. There was some irritation, but it was not at all intense. There was no constitutional disturbance, and by 11 A.M. the rash had almost entirely disappeared. To verify the cause of the eruption I gave the child the last powder at 7.20 A.M. on the following morning, and in an hour a similar rash, if anything more intense, had appeared. The bowels were freely opened about 9 A.M., and the rash had entirely gone by 10 A.M. There do not appear to be many cases of this interesting eruption recorded. Sieveking[1] mentions a similar example, which is the only one referred to by Crocker, and Morrow, in his interesting work on drug eruptions, mentions the above case and a number of others recorded by Hubert, in which the administration of santonate of soda was followed by an eruption of pin-sized vesicles in the trunk and limbs. Underwood[2] also relates a case in which the taking of five grains of santonin in an adult was followed by a morbilloid cuticular effluorescence and a punctiform rash on the buccal and pharyngeal mucous membrane. It appears, therefore, that the santonin idiosyncrasy is rare, and that the eruption may vary in character, is accompanied by little or no constitutional disturbance, and rapidly disappears, leaving no ill-effects.

Reading.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. (v. Proœmium.

RADCLIFFE INFIRMARY, OXFORD.

FIVE CASES OF HYSTERECTOMY FOR UTERINE FIBROID.

(Under the care of Mr. H. P. SYMONDS.)

WE give here a series of operations in cases of myo-fibroma of the uterus which will be found of interest. The first two of these cases were performed by the extra-peritoneal method, the last three by the intra-abdominal method. In the latter the ovaries were removed and the uterine arteries secured by ligatures; the pedicle was clamped by powerful forceps and crushed; and three or four sutures were passed behind these forceps and tied. The tumour was then removed in front of the forceps, and afterwards the grip of the latter was slowly relaxed and the stump carefully sutured from end to end, turning the peritoneal surfaces in as much as possible. These sutures arrest any hæmorrhage, in addition to keeping the cut surfaces in apposition. Mr. Symonds was led to adopt this method of operation from experience in removing pedunculated fibroid tumours of the uterus in two patients successfully; it therefore occurred to him that the whole uterus could easily be removed in this way. The chief point he would wish to insist upon is the value of crushing the neck of the tumour before removal. This makes the subsequent arrest of hæmorrhage a much less formidable operation. With regard to the statistics of abdominal hysterectomy, his experience leads him to the opinion that when the operation is undertaken in cases of undoubted diagnosis it is very little less dangerous than ordinary ovariotomy.

CASE 1.—An unmarried woman forty-two years of age was admitted into the Radcliffe Infirmary, Oxford, complaining of swelling of the abdomen, excessive menstrual loss, and inability to follow her employment of domestic servant. She was kept under observation for some time. She had one period whilst in the hospital previously to her operation, but this was not very excessive; it was, however, accompanied by dysmenorrhœa. The abdomen was irregularly distended in its lower half, and on palpation a hard, irregular mass could be felt; this, with the finger in the vagina, could be distinguished to be continuous with the cervix, which was movable with the mass. There were no lineæ albicantes. To the right of the larger mass, which extended as high as the umbilicus, there could be distinguished a smaller mass which was more freely movable although evidently attached to the larger. No sound was passed, and the possibility of pregnancy was eliminated by other features—viz., regular menstruation, condition of breasts, duration of swelling, &c. A uterine fibroid was diagnosed.

Operation.—Under ether Mr. Symonds made an incision midway between the pubes and the umbilicus for three inches. The peritoneum was quickly reached and, after all hæmorrhage had been stopped, was opened (not on a director). The tumour almost immediately presented itself. It proved to be a fibroid of the uterus. On introducing the hand to the right there could be felt the smaller mass mentioned above, which was a pedunculated fibroid. To deliver the tumour through the wound it was found necessary to enlarge the incision upwards, this not being possible downwards on account of a flaccid non-contracted bladder. After bringing (with some difficulty, probably owing to the nulliparous vagina) the tumour outside the abdomen the ovaries and appendages were sought. These were removed after clamping the broad ligament and tube on the uterine side and tying all necessary vessels with silk. The tumour itself was next dealt with; the pedicle was grasped as low as possible with an exceedingly strong pair of forceps with a catch at the handle. The next step was to remove the tumour. This was done by a series of snips with scissors, the blood being prevented from escaping from the tumour by pressure forceps above that line, whilst any escape of blood from the stump itself was regulated by passing a silk ligature close to the clamp through the stump and tying it over the line of incision. In this way the whole tumour was gradually removed without any large escape of blood. The clamp was now gradually released, any bleeding points being, if seen, seized with pressure forceps and tied on. In the case of general oozing a ligature was passed deeply into the substance of the stump and tied over its cut surface. In this way all bleeding was stopped and the stump was finally returned into the abdomen. The wound was closed by sutures passed through peritoneum, muscle, and skin on both sides and tied, the skin wound being completely closed by any necessary additional sutures. No drainage was used. The wound was dusted with boracic powder and dressed with gauze pads wrung out of a 1 in 20 carbolic solution. The whole operation, including the time for bringing the patient under the influence of the anæsthetic was performed in an hour and a quarter.

On section the tumour was seen to consist of a typical uterine fibroid, or rather collection of fibroids, which were encapsuled and tended to enucleate. The mass appeared to extend chiefly from the posterior part of the uterus, the body of which, with its very tortuous and elongated cavity, could be made out in front. In addition to the pedunculated growth already mentioned there were numerous subperitoneal nodules studding the surface of the growth. After the operation the patient was given nutrient enemata every three hours, sips of hot water by mouth in case of sickness or retching, and warm water (four ounces) per rectum (if thirsty) every four hours. The catheter was used every six hours. The patient made an uninterrupted recovery, and was discharged to a convalescent home five weeks after admission.

CASE 2.—A woman thirty-seven years of age was admitted into the Radcliffe Infirmary, Oxford, suffering from a fibroid tumour of the uterus, which caused increased loss of blood at the catamenial periods and some pain and discomfort. She first noticed the swelling in June, 1890, after her last confinement, which was a difficult one, the child being stillborn. She had been in the hospital in the autumn, but was then unwilling to undergo the operation of oöphorectomy.

Operation.—The patient being under the influence of ether, Mr. Symonds made an incision about three inches long between the pubes and the umbilicus in the middle line, and opened the peritoneum in the usual way. On opening the peritoneal cavity a little free peritonitic fluid escaped. The tumour at once presented at the lower part of the wound, being covered at the upper part by intestines. It was of irregular outline, its surface being studded with several small, very vascular, and pedunculated fibroids. It was about the size of a doubled fist. Mr. Symonds first

[1] Brit. Med. Jour., Feb. 18th, 1871.
[2] Ibid., Oct. 13th, 1888.

removed both ovaries and then decided to remove the uterus, which he did by dragging it out through the wound and by applying a Kœberlé's serre-nœud round its base, inserting two Kœberlé's needles beneath the wire. The tumour was then removed, the peritoneum and edges of the wound were brought together round the stump, and a dressing of boracic powder and blue gauze applied. The duration of the operation was seventy minutes, and was followed by no marked collapse. When the patient came round from the anæsthetic she complained of great pain in her abdomen, but was relieved by one-sixth of a grain of morphia given hypodermically. The patient made a perfectly good recovery. The clamp was gradually tightened day by day and was removed on the thirteenth day. The Kœberlé's needles were removed on the sixteenth and seventeenth days, and the patient was discharged after nine weeks cured.

CASE 3.—This patient was a married woman fifty-one years of age. Six years ago she was troubled with pain in the lower abdomen and the right side. She also suffered from metrorrhagia. She noticed, too, that her abdomen was getting large. She first consulted a medical man four years previously, and on his advice she went to a hospital, where she was told an operation was impracticable. Since then her health had varied. She said the swelling had been larger. History: Previously she had always enjoyed good health. She had been married twice and had borne six children, the youngest being twenty-five years old. For years her menstruation had not been regular. She last had a "flooding" in Christmas week. The patient's condition on admission was as follows: Her face was pale and puffy; the respiration was 44. Her chief complaint was the sense of weight in the stomach and pain over the epigastrium. Her legs swelled. The abdomen was semiglobose, the umbilicus was prominent, the linea albicantes were present, and there were a few enlarged veins over the lower right abdomen. The swelling extended rather more to the right side than to the left; it showed a tendency to be grossly lobulated in its contour and moved on respiration. It was slightly tender to the touch. There was no sensation of fluctuation; it moved from side to side, rotating from a fixed point below. It was dull to percussion; it extended upwards to within two inches of the xiphoid cartilage, and outwards on both sides into the iliac fossa. The rest of the abdomen outside the tumour was resonant. There was a souffle to be heard on both sides of the tumour. Per vaginam the cervix was high up, almost flush with the vaginal walls and bimanually could be felt to move with the abdominal tumour. The sound was not passed. A uterine fibroid was diagnosed.

Treatment.—After the usual preparation, antiseptic and otherwise, the patient was operated upon; a quarter of a grain of morphia was given hypodermically fifteen minutes before commencing with the anæsthetic. A long incision, from six to eight inches, was made in the linea alba, and the tumour was forced through the wound; there were no adhesions to it. The ovaries and appendages were first removed, after clamping and tying. The base of the tumour was then compressed with a Billroth's clamp and after this had been gradually tightened to its fullest extent the tumour was rapidly removed with the knife; bleeding from the stump was found to be completely arrested by the forceps. A wedge was then cut from the stump so as to allow of the better adaptation of its sides when tied over as in Case 1. The after-treatment was the same as in the case previously mentioned. The patient went on very well till the eighth day, when pain and distension appeared, on which complete obstruction supervened. This resisted all medicinal treatment and resulted in death on the fifteenth day after operation.

Necropsy.—The abdominal wound was completely and well healed from skin to peritoneum; there was much distension of the small intestine, which was in a few places glued together; at these spots there were black patches, probably of altered blood. The obstruction and consequent distension was due to a coil of intestine, which was so firmly glued to the stump of the uterus that in order to examine it properly it was necessary to remove them together. It was then found that the gut folded back again on itself in an S shape, thus completing the obstruction. Below the obstruction both small and large intestine were collapsed. The tumour was about the size of a Rugby football, and when empty of its blood weighed 8 lb. 11½ oz. On section it was a growth starting in the centre of the uterine wall and thickly encapsuled by it; the growth was in the anterior wall; the endometrium was quite free and the cavity of the uterus enormously enlarged—eight inches in length and broader than natural. The wall of the uterus not containing the tumour appeared healthy. Microscopically the tumour was brain-like in section, of varying consistence, being at several centres soft and apparently sarcomatous; also here yellowish in colour. Microscopically the tumour showed spindle-shaped cells in places, and was undoubtedly becoming sarcomatous.

CASE 4.—The patient was a woman forty years of age. The lower abdomen was occupied by multiple movable masses, the largest being of the size of a cocoanut. Complaint was made of much discomfort and inability to work from dragging pains; the patient was very stout; there was no menorrhagia; she was very anxious for operation. The usual antiseptic and preparatory precautions were adopted; ether was administered. Mr. Symonds made an incision six inches in length just below the umbilicus. The peritoneum was opened; omentum presented, and was pushed aside by a flat sponge. The larger fibroid then came into view, and was with much difficulty raised from the abdominal cavity. The uterus could not be reached, and the pelvis was occupied by numerous smaller masses, which could not be drawn through the abdominal wound. A wire écraseur was placed round the large fibroid, including two smaller ones at its base. Two stout pins were passed through the mass as low as possible, and were laid flat on the abdominal wall. The wire was then tightened up, a second one having been placed round the opposite side. The tumours were then cut through above the wire and pins, leaving a large stump held in position by the wire clamps and pins. Both ovaries were removed without difficulty. The wound was united above by silk sutures, leaving the stump exposed at the lower part and tightly surrounded by the edges of the lower third of the incision. The dressing consisted of boracic powder and carbolic gauze. A good deal of oozing took place during the operation, and the peritoneal cavity was dried as completely as possible by aseptic sponges. The after-treatment consisted in dressing the wound twice a day and quick tightening of the wire and cutting away the dead portions of the stump, which was kept as dry as possible by equal parts of iodoform powder and sulphate of iron. The wire was disengaged on the ninth day, and further dead portions of the stump were removed, leaving a deep cavity lined by healthy granulations. The temperature averaged from 100° to 101° F. during the first week and then declined by lysis. Some suppuration took place under the lips of the wound above the stump, and somewhat retarded the healing. The abdominal wall was well supported by strips of adhesive plaster. The urine was drawn off by catheter for the first few days. The patient bore the operation well; she had much pain and sleeplessness for the first fortnight, but ultimately her recovery was perfect.

CASE 5.—A woman thirty-one years of age was admitted to the Infirmary on Feb. 8th with the history that she had been fairly well until three years previously, when she had a profuse loss from the vagina. Since then her menstruation had been too frequent. In August last she menstruated for a month without stopping. She had never regained her previous health since August. She was anæmic, the tongue was pale and flabby, and the breasts were virginal. There was a hard mass rising out of the pelvis inclined to the left iliac region; it extended to nearly halfway between the umbilicus and pubes. The sound passed four inches with difficulty.

Operation.—After the usual preliminaries Mr. Symonds opened the abdomen in the middle line and then the peritoneum. A soft, vascular tumour could be seen rising from the pelvis and occupying the position of the uterus. This was with extreme difficulty, owing to its slippery surface, clamped and delivered through the wound, and after the appendages had been removed the base was clamped with a Billroth's clamp and the tumour was quickly removed *en masse*. Ligatures of silk were then passed into the substance of the stump and tied over its surface. No drainage was used. On the following day the patient was given Hunyadi water (three and a half ounces) every hour, as she was much distended; in addition, as sickness continued, she was given hydrocyanic acid. The distension passed off and the patient made an uninterrupted recovery.

MEDICAL MAGISTRATES.—Mr. John Oakley, M.R.C.S., of Halifax, Mr. John Hodgson Wright, M.R.C.S., of the same town, and Mr. Richard Wood, M.D. St. And., M.R.C.S., of Driffield, have been placed on the Commission of the Peace for the borough of Halifax and the East Riding of Yorkshire respectively.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Extreme Prolapse of the Female Urethra in a Child.—Uretero-Lithotomy.

AN ordinary meeting of this society was held on May 8th, Mr. HUTCHINSON, President, being in the chair.

Mr. THOMAS BRYANT brought forward a case of Extreme Prolapse of the Female Urethra in a Child aged six years whom he saw with Mr. Atkinson of Wood-green on June 14th, 1893. The child for three years, at intervals of many months, had on four occasions suffered from genital irritation, with discharge from the vulva of blood-stained mucus; but, as these symptoms passed off after the lapse of a few days, no professional advice was sought. The present attack came on five days before Mr. Bryant saw her, with local genital irritation and straining, which being supposed by the mother to be connected with the bowel was treated by home remedies. On the third day, as the symptoms had steadily increased in severity and the discharge of blood-stained mucus had become more copious, Mr. Atkinson was called in. On the fifth day Mr. Bryant saw the case with Mr. Atkinson. At that time, on making a local examination, the genital organs were bathed with blood-stained mucus, and between the labia was a cherry-red, blood-oozing, projecting mass about three-quarters of an inch in diameter, and of the same elevation, with a more or less central orifice surrounded by folds of congested mucous membrane, through which a catheter was readily passed into the bladder. (A drawing was handed round illustrating this condition.) It thus became clear that this protruding mass was an everted urethra. On the day following this examination, with the child under the influence of chloroform, the urethra was dilated and the bladder explored by the finger, but with a negative result, and during this operation the prolapsed urethra was reduced. The case subsequently did well. Mr. Bryant brought this case before the society as he had never seen another like it, and on searching into the literature of the subject such cases were evidently very rare. He then gave an epitome of what had been written upon the subject.—Mr. CROFT said that he had published a somewhat similar case years ago in the St. Thomas's Hospital Reports; in that the prolapse was of the bladder through the urethra. He found a red vascular, pear-shaped projection between the labia in an infant fourteen months old, which had been down for four hours. The surface was covered by mucous membrane. As he was inserting his little finger into the anus a violent struggle occurred, and the tumour burst at its prominent anterior aspect, allowing the escape of a large quantity of clear straw-coloured fluid. He did not see the orifices of the ureters, but he did not pull down the bladder to search for them. Under an anæsthetic the protruded portion gradually returned. The mother stated that a similar but less extensive prolapse had taken place more than once before. Chemical examination of the clear fluid which escaped at the time of rupture showed that it was not urine, and he believed that it was serous, and came from the peritoneal cavity; the bladder, in becoming inverted through the urethra and meatus, carried its partial peritoneal coat with it, and thus a hernia of the peritoneum was formed through the urethra and meatus. The peritoneal sac became constricted by the meatus just as an inguinal hernia was by the abdominal ring, and the peritoneum poured out under these circumstances—as it would do in an inguinal hernia—serous fluid, and the violent expulsive efforts of the abdominal muscles caused the rupture of the bladder wall.—Mr. REGINALD HARRISON said that he had not met with any precisely similar case in his own practice, but he had heard of one which closely resembled it. In that instance a surgeon, imagining that he had a polypus to deal with, was about to pass a ligature round it in the same manner as he would do to a hæmorrhoid; but he first, fortunately, passed his finger into the rectum, and he succeeded in reducing the swelling in that way. Though all were familiar with prolapses of anus and rectum as a common symptom of stone in the bladder in both male and female children, he could not see how any irritation acting reversely from the rectum could lead to such a condition of the bladder. He considered it more likely that the hernial protrusion was brought about by the common causes which led to protrusions of this nature generally.—Mr. GODLEE referred to a case which was under his care some years ago at the North-Eastern Hospital for Children. The child, a girl, was brought to him with two polypoid masses projecting from the vulva, one on each side, covered by pale and stretched mucous membrane. He watched the case for some weeks, but as no symptoms developed he ligatured the masses and cut them off. No stricture of the urethra or other serious consequences followed.—Mr. BRYANT in replying said that he had seen two examples of the kind to which Mr. Croft had alluded, one in the practice of Mr. Davies-Colley and the other in that of Mr. Birkett. It was the recollection of the mistakes that had been made which induced him to bring his case forward. It should be remembered that polypi of the female bladder did occur, and he thought that possibly Mr. Godlee's case was a polypus of the female urethra. In some instances the prolapse of the urethra was so slight that it amounted to a mere "pouting."

Mr. EDWARD COTTERELL then read a paper upon two cases of Uretero-lithotomy. He first related the cases. The first occurred in a female sixty-one years of age. Nephro-lithotomy was performed on March 13th, 1893, with removal of several calculi, and the wound healed. About five weeks afterwards she had severe renal colic, lasting at intervals for twelve days. The kidney and upper four inches of the ureter were explored on April 27th, with a negative result. The ureter was explored on Aug. 3rd by incision, similar to that described for tying the common iliac. A calculus was found impacted just below the brim of the pelvis. The ureter was not sutured. The second case occurred in a female forty-four years of age. She had symptoms of stone or foreign body in the bladder. Exploration of bladder per urethram detected two calculi lodged in the lower end of the right ureter, not projecting into the bladder. They were removed by incising the ureter through the vault of the vagina. A table of twelve cases of uretero-lithotomy was given, and a short analysis of this table was made. After detailing the prominent symptoms, the operative treatment to be pursued was discussed when the stone was impacted (1) within three inches of kidney; (2) below this point to within about two inches of the lower end; (3) the lower end in women; (4) the lower end in men. Suturing the wound of the ureter was considered unnecessary.—Mr. GODLEE said that the first case of the kind he had seen was in the practice of Sir Joseph Lister, and in that case some years previously stones had been removed from the kidney, and more recently one from the perineum. He made an incision into the ureter and prolonged it upwards, discovering a stone impacted three inches below the kidney. The result was favourable. In the second case there was complete suppression from the impaction of a stone in each ureter. He chose the one least felt, and removed a stone from the ureter two inches below the kidney. The stone on the opposite side found its way into the bladder. In the third case the patient was passing large quantities of blood and pus in the urine. As she suffered from myxœdema he was loth to interfere in the way of operation. At last he dilated the urethra and found a large stone projecting from the left ureter. A finger in the vagina enabled him to turn it out of the ureter, and it was then extracted by way of the urethra. Another case in middle life was that of a patient who suffered from symptoms of renal colic, which culminated in complete suppression. After this had lasted several days, he cut down on the right side and found an enormously hypertrophied kidney, and on incising it he had the greatest difficulty in reaching the pelvis. He passed a catheter as far as he could into the ureter, but it was not long enough to reach the bladder. Next day a small œsophageal bougie was passed along the ureter into the bladder, and the patient had remained well since.—Mr. REGINALD HARRISON, referring to Mr. Cotterell's suggestion that in stones impacted just above the bladder they should be approached in women from the vagina, and in men by perineal incision as for exploring the vesiculæ seminales, said he remembered a case in a boy where it was quite possible to feel from the rectum a stone in the ureter. The patient died soon after, and at the necropsy a stone was found in this position and could have been dealt with through the incision mentioned by Mr. Cotterell.—Mr. HENRY MORRIS said that a good many years ago he had the opportunity of feeling a stone in the lower end of the ureter in a woman whom he saw immediately she had completed a railway journey. She had long suffered from symptoms of renal calculus, but lately they had reference more to the bladder. He explored the bladder digitally

and there he found a stone in the lower end of the ureter; he endeavoured unsuccessfully to move it with his finger-nail into the bladder. Her condition was such a desperate one that no further operative procedure could be undertaken. He made the case the subject of a paper in the *American Journal of Medical Sciences* (October, 1884), in which he illustrated a knife with a long handle and short cutting blade suitable for dividing the vesical orifice of the ureter. He also there suggested that when the symptoms of the case pointed to the gradual descent of a stone down to, but not into, the bladder such an operation should be undertaken before any exploration of the kidney was made; and that in a male subject a similar exploration of the lower end of the ureter might be made through the usual small "boutonnière" into the bladder. With regard to cases in which the stone had not passed down to the vesical end of the ureter, but had nevertheless passed beyond the reach of an operation in the loin, he had not yet been called on to deal with such a case by an abdominal operation. But in cases where there had been good evidence from digital and ocular examination of the kidney that stone had been in the kidney and had passed on leaving a damaged organ he had performed nephrectomy with satisfactory results. If the kidney in such a case were removed the calculus would quietly settle down and give rise to no trouble. Mr. Knowsley Thornton had recorded a case which confirmed this view. It was reasonable to believe that if a surgeon removed a damaged kidney above a stone impacted in the ureter, the hydrostatic pressure of the urine accumulated behind the obstruction would be removed, and the patient would be placed in an immediate and permanent condition of relief. In cases of suppression of urine with stone impacted in the mid-course of the ureter nephrotomy should be performed; but the patient would not be in a condition to bear a laparotomy for the extraction of the calculus. If the patient recovered from the suppression the calculus might be removed subsequently or a permanent fistula might be maintained.—The PRESIDENT recollected a case in which he afterwards regretted not having performed an operation of this kind. The patient was an old man who had been in good health until within five days of coming under observation, when he was in a condition of uræmic poisoning and died the same night. There was no right kidney, but on the left side a large organ with a stone plugging the ureter. He also remembered another case in which he had much trouble in exploring the ureter for a calculus without finding it, so he adopted Mr. Morris's plan and performed nephrectomy, leaving the stone behind.—Mr. COTTERELL, in reply, said that it would be possible to push down only very small stones into the bladder, and if ulceration had taken place the instrument might perforate the ureter. His method of reaching the lower end of the ureter in the male was much less formidable than the modification of Kraske's operation, which had been advocated in America.

MEDICAL SOCIETY OF LONDON.

The Starting-points of Tuberculous Disease in Children.—Excision of Chronic Perforating Ulcer of the Duodenum.

AN ordinary meeting of this society took place on May 7th, Sir WILLIAM DALBY, President, being in the chair.

Dr. WALTER CARR read a communication on the Starting-points of Tuberculous Disease in Children. The paper, which we print in full in our present issue, was based on 120 necropsies upon children suffering from tuberculous disease, and the following conclusions were drawn:—1. That tuberculous disease commenced usually in the glands, the liability being at its maximum during infancy. 2. That tuberculous lesions in the cervical glands—as in the joints—might arise by infection through the blood stream, but that caseation of the bronchial and mesenteric glands, when primary, was usually—if not always—due to direct infection from the organ with which they were connected. 3. That tuberculous disease started much more frequently in the thorax than in the abdomen. 4. That caseation of internal glands, from the frequency with which it was found after death, must have often existed alone and quite unsuspected. 5. That in regard to treatment prophylaxis was by far the most important.—Sir WILLIAM DALBY said that the evidence which Dr. Carr had brought forward tended to show that in those cases in which tuberculosis was acquired the organism was taken in with the air which was inspired rather than with the food which was eaten.—Dr. SIDNEY MARTIN welcomed the communication of Dr. Carr as an attempt to record accurately the beginnings of tuberculosis in children, though he could not admit that the proportion of cases in which there had been primary infection through the abdominal viscera had been correctly given, and, moreover, certain matters had been assumed to be proved which were still subject to dispute. Very little accurate information had yet been published as to the infectivity of food, though this was most important, as the whole of the future control of the spread of tuberculosis depended upon prophylaxis. The usual modes of tuberculous infection were through the lung or through the alimentary tract, and the cases of infection, considered experimentally, could be divided into three classes: (1) cases in which a definite primary lesion was discovered; (2) cases in which no lesion developed at the seat of infection; and (3) cases in which there was a minute or insignificant local lesion, but extensive after-infection of the body. Under the first head were included the common cases of pulmonary tuberculosis and the infection of the small and large intestine in the tuberculous ulceration of adults and children. Under the second head came those cases in which no lesion could be found at the seat of infection, as, for example, the cases of so-called primary tuberculous meningitis and the tuberculous infection of joints and of the mesenteric, thoracic, and cervical glands. In these it was difficult to discover the seat of entrance, and yet there was no doubt that bacilli did not occur in the tissues unless there was a distinct local lesion. His experimental work had tended to explain some of these difficult cases. In all cases in which tuberculosis was given to a guinea-pig by feeding, a local lesion was produced in the intestine, and in many in the glands also. In only one case out of very numerous experiments on guinea-pigs did he find infection of the glands without obvious primary lesion of the intestine. The material which he used for feeding the animals was very virulent. If a large dose of tuberculous material was given to pigs it produced results similar to those obtained from the guinea-pig. Tonsillar tuberculous ulceration was common in pigs, and from this followed infection of the lymphatic glands beneath the jaw and in the neck; but he had met with cases of tuberculous infection in the pig in which a local lesion could not be discovered. The pigs were very carefully selected, so as to exclude all but healthy animals, and they were fed with different kinds of tuberculous material. Among some exceptional results one pig showed tuberculous cervical lymphadenitis, while the tonsils were normal. In another pig there was tuberculosis beneath the jaw and in the lungs; in a third the mesenteric glands were affected without obvious involvement of the intestinal mucous membrane; in a fourth instance the cœliac glands, which received the lymphatic supply from the stomach, duodenum, and upper part of the small intestine were alone affected; in a fifth animal the glands in the lesser omentum were the only ones involved; in a sixth the mesenteric glands, the glands in the lesser omentum, the posterior mediastinal and bronchial glands, and the epididymis, were involved, the latter organ being probably infected through the bloodvessels, while the others were infected through the lymph channels. In necropsies performed on human subjects the primary lesion was often overlooked, being frequently excessively minute. The results of his experiments convinced him that in many animals—in cows, for instance, which presented a typical thoracic gland infection, infection of the post-mediastinal and bronchial glands, and of the pleura—they probably acquired their primary infection by small doses of tuberculous material introduced into the alimentary canal. The difference in the location of the lesions in tuberculosis was to a great extent a matter of dose. A small dose might give rise to no visible primary lesion, while a larger dose usually did so. The smaller dose might give rise to lesions only discoverable as enlarged glands below the jaw or round the duodenum, or in the lesser omentum, or in the mesenteric or cæcal glands. In many of the cases of infantile tuberculosis a small dose of the poison was taken, and a limited infection at first resulted, a small initial lesion, and then, perhaps, afterwards a large amount of secondary infection.—Dr. ROUTH pointed out the value of the lymphatic glands as a means of arresting the disease, in the same way that the poison of syphilis or of a dissection wound was arrested.—Dr. CARR, in reply, said that he had been able to study some very early cases of tuberculous disease in children who had died from other causes and in whom tuberculous infection was accidentally discovered. As to the question of infectivity through food, he thought it was now generally admitted that tuberculous milk was a

common source of infection; the question of the infectivity of tuberculous meat was still *sub judice*, but in children that formed a subsidiary question. He believed that the glands were usually infected near the primary source of infection. He had no doubt but that the lymphatic glands did act as filters and arrested the disease.

Mr. PERCY DEAN read a paper on a case of Chronic Ulcer of the Duodenum which perforated and caused Acute General Peritonitis. Abdominal section and excision of the ulcer were followed by a successful result, though the patient ultimately died after an operation for the relief of intestinal obstruction by band. The patient was a woman aged twenty-seven, who was admitted into the London Hospital on Feb. 17th of this year with intense abdominal pain and distension, dry furred tongue, and frequent vomiting. The temperature was 100·6° F. For a fortnight there had been pain in the chest and in the pit of the stomach; the patient had been treated for indigestion, the bowels being very costive. Twenty-four hours before admission she became much worse, with increased pain and weakness. He diagnosed acute general peritonitis and thought on the whole that it was due to mechanical obstruction. He made a three-inch incision below the umbilicus, and purulent fluid escaped. Afterwards the incision was continued upwards, and he found a perforating ulcer of the duodenum on the anterior wall of the gut; round the perforation the wall of the intestine was indurated. He excised an ellipse with scissors, the portion removed including both the ulcer and the indurated area. The hole in the intestine was stitched up with Lembert's sutures, and, after flushing out, the abdominal wound was closed. The patient made a good recovery and thirty days afterwards was walking about. On April 13th she complained of abdominal pain accompanied by sickness. Enemata and purges having failed to relieve her, abdominal section was performed later and a band found which caused a kink in the intestine, completely obstructing the lumen of the gut six inches above the ileo-cæcal valve. The band was divided and the obstruction relieved, but the patient did not rally and died thirty-six hours later. At the necropsy lymph and turbid fluid were found in the peritoneal cavity. Three inches above, where the band had crossed the intestine, was a perforation, and above this another; both corresponded to small acute ulcers in the small intestine. There was no indication of ulceration in the duodenum at the seat of the first operation. Mr. Dean concluded by stating that it was impossible to prevent the formation of a band after an operation for acute peritonitis, and that in another such case he would cut down at once where acute pain and other symptoms pointed to obstruction by band.—Mr. LOCKWOOD congratulated Mr. Dean on the successful result of the first operation. It was often difficult to diagnose, not only the presence of ulcer, but whether it had perforated. The universal tenderness might have awakened the suspicion that the trouble was due to acute peritonitis, and the uniform tenderness and distension were characteristic of perforation. He referred to two cases which he had previously related to the society, and in one of them the ulcer was very hard to find, even at the necropsy. These ulcers were favourable for surgical treatment if they could be discovered. A clue to their presence might be gained from examination of the fluid in the peritoneum; if it was acid it suggested perforation high up.—Dr. HOLMAN referred to a case, which occurred in his practice in 1861, of a duodenal ulcer occurring in a medical man. The trouble began when the patient was twenty-two years of age, and he died from slow starvation at fifty-one. If the surgeons of that day had only possessed the knowledge of the present time such a case might have been saved by operation. He had seen five other cases of duodenal ulcer since.—Mr. DEAN, in reply, said that he diagnosed general peritonitis, and he thought that mechanical obstruction might cause it. He was inclined at the time to exclude duodenal ulcer on account of the small amount of collapse present.

OBSTETRICAL SOCIETY OF LONDON.

Intermittent Contractions of Uterine Fibromata, and in Pregnancy, in relation to Diagnosis.—Exhibition of Specimens.

A MEETING of this society was held on Wednesday, May 2nd, Dr. G. E. HERMAN, President, being in the chair.

The report of the subcommittee on Mr. Grogono's Acardiac Fœtus was read.

A paper was read by Dr. BRAXTON HICKS on Intermittent Contractions of Uterine Fibromata, and in Pregnancy, in relation to Diagnosis. He referred to previous papers by himself on uterine contractions during pregnancy, and on their value in the diagnosis of pregnancy and other tumours complicating it and independent of it. He alluded to criticisms on the value of this sign, related a case where he observed contractions in a fibroid tumour of the uterus, and then considered the bearing of this occasional character of fibroids in diagnosis in the small percentage of cases where unusual symptoms cause doubt as to the existence of pregnancy. He called attention to the difference in sensation given by a fibroid, which still appears solid on relaxation, from that of a relaxed pregnant uterus in which the fœtal parts may be felt. He also mentioned the differential diagnosis in the case of vesicular moles, and of hydramnios, and considered the greatest difficulty might occur when there was a cancerous mole, as the physical signs and the symptoms might all resemble those of fibroids. He showed how a normal pregnancy, when the uterus is constantly and firmly contracted, might be mistaken for a fibroid, even after repeated examinations. He then discussed the diagnosis in cases of fibromata complicating pregnancy: between an ovarian and a uterine tumour, hydronephrosis and a uterine tumour, and in extra-uterine gestation. He concluded that the sign may be used in a large majority of cases either as distinct proof or as corroboration of other signs, or in the differential diagnosis of abdominal tumours.

Dr. HORROCKS said that contractions and relaxations could be demonstrated as early as the fourth month. He believed that they occurred also in the unimpregnated uterus. He had shown that it was a law of muscular fibre generally when healthy to contract and relax all through life. Hence it was more than probable that myomata did so too, although he had seldom or never satisfied himself clinically that this was so. He pointed out that when a muscle contracts it tends to become more or less spherical, and this held good of the uterus in the painless contractions of pregnancy. When the uterus relaxed it fell by its own weight into its former flatter and softer state. He considered the alteration in shape by far the most important point in the diagnosis between a pregnant uterus and a fibroid tumour so far as related to muscular contraction. The former altered in shape, the latter did not to any appreciable extent.

Dr. CULLINGWORTH said that Dr. Hicks had frankly accepted the force of the main objection urged against the diagnostic value of uterine contractions—namely, that contractions had been found occasionally in soft myomata. He (the speaker) had seldom satisfied himself of the existence of contractions in myomata, and they must be rare. Dr. Hicks had mentioned in his paper that the sign was of value in extra-uterine gestation, "in order to distinguish between the uterus and the gestation sac." Did he mean that the phenomenon was observed in the uterus, and not in the sac, or in the sac and not in the uterus? Dr. Cullingworth reminded the Fellows that he had brought before the society (April, 1893) a case of extra-uterine gestation in which, after cessation of fœtal movements at the end of the eighth month, the empty and slightly enlarged uterus, lying in front of the sac and forming a distinct prominence beneath the abdominal wall, was the seat of contractions and relaxations perceptible not only to the touch, but also to the eye.

The PRESIDENT agreed with Dr. Hicks that intermittent contractions in a tumour proved conclusively that it was uterine. It might be a fibroid or pregnancy. In the former case the sign was only felt when the tumour was soft and surrounded by uterine muscle, not when the growth was subperitoneal. There was another sign—namely, the variations in loudness of the uterine souffle. This became louder while the uterus was contracting, softer when the contraction was at its height, louder again as the contraction was passing off, and softer when relaxation was complete. This condition was only found in connexion with the enlarged uterus. It was possible that, as Dr. Fenton suggested, the recurrence of contractions might be due to the pressure of the hand or movements of the fœtus, but he (the speaker) had noticed contractions when the handling of the uterus had been of the most gentle kind.

Dr. BRAXTON HICKS, in reply, said that he intended it to be understood the diagnosis was to be made by the aid of intermittent contractions between intra- and extra-uterine fœtations. He had instanced the practical value of the knowledge of this sign in many papers. He might, however, mention the case where a single girl complains

of amenorrhœa, and there is a suggestion of pregnancy. The point can be cleared up without raising suspicion by placing the hand on the abdomen and feeling a tumour with the characteristic contraction and relaxation. In the case of fibroid of the wall of the pregnant uterus the uterus can be made out to be hard and firm on one side and soft on the other during relaxation; but when contraction occurs the whole becomes firm, showing that the tumour is uterine; also when there are twins, and the uterus is of irregular form and like two tumours, a contraction makes the uterus globular, and it is seen that the apparently two are really one. He had said in his first paper that he had no information as to whether the bladder in retention could be noticed to contract intermittently. He thought it a point worthy of observation.

The following specimens were shown:—

Dr. GILES and Dr. PROBYN-WILLIAMS: Exomphalic Fœtus.

Mr. L. CUTLER: Kidneys from a case of Eclampsia.

Dr. DUNCAN: Uterus with Gangrenous Fibroid.

Dr. REMFRY: Cirrhotic Ovaries, with microscopic sections.

Dr. HORROCKS: Unusually large Fallopian Tube in a case of Ovarian Tumour.

Dr. HAYES: Tubal Hæmatoma.

PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Tuesday, May 1st, 1894, Mr. JOHN APPLEYARD, President, in the chair.—Mr. HUGHES showed a child aged seven years. During the past eighteen months his gait had altered and the muscles became weak, the pupils were widely dilated, the mental condition was somewhat impaired, and there was loss of memory. The infra-spinati were possibly hardened, and it was probably an atypical case of pseudo-hypertrophic paralysis.—Dr. S. LODGE showed specimens and preparations from Growths removed by Intra-laryngeal Operation, in two cases papillomata giving rise to dyspnœa after a history of seventeen and twenty-five years respectively; another was a case of Mixed-celled Sarcoma of rapid growth.—Dr. ADOLPH BRONNER showed three cases of Mastoid Disease and Operation in Adults. There was a history in each case of discharge from the ear followed by intense pain in the mastoid region. In two cases there was no visible swelling over the mastoid process, in one case only slight swelling; in none was the mastoid painful on pressure, nor was there any marked rise of temperature, and in all the periosteum and exterior layers of bone were apparently normal. It was only after chiselling away the bone to the depth of from six to ten millimetres that pus or granulation tissue was found. The cases were of great practical importance and showed how extensive disease might be present in the mastoid process, with no external swelling or sense of pain on pressure. Whenever pain was present we should not be content with Wilde's incision, but cut down on the mastoid antrum or cells where in most cases extensive disease would be found.—Mr. HEBBLETHWAITE read notes of a severe case of Tetany beginning with pains, tingling, and a sensation of breaking in the muscles of the arms, then flexion of thumb across the hands, and movements which even persisted during sleep in a stout woman aged thirty-six years after a sharp attack of diarrhœa in the eighth month of her sixth pregnancy and after nursing a child through typhoid fever. The attacks were worse some hours after an easy labour, there were violent general spasms of trunk and legs and even of muscles of speech and deglutition, very painful and without any loss of consciousness. Chloral and bromide were used freely; the urine was normal. In the following pregnancy about the seventh month she had occasional attacks which were kept under by sedatives; during labour these attacks gave rise to fear of dyspnœa.—Dr. MAJOR read a paper on Pitfalls in the Diagnosis of Pneumonia.—Mr. BARBER showed a case for Diagnosis, a young girl with a copious Purpuric Rash.—Dr. ADOLPH BRONNER demonstrated a modified Javal's Ophthalmometer for the direct estimation of corneal astigmatism.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on May 2nd, the President, Dr. CLOUSTON, in the chair.—Mr. CAIRD showed two patients after recovery from Tracheotomy for Diphtheria. From both cases pure cultures of the diphtheria bacillus had been obtained by Dr. Robert Muir, and were exhibited to the society.—Dr. NORMAN WALKER read a paper on the Commoner Varieties of Lupus Vulgaris and their Treatment. He said that the old classification of lupus exedens and lupus non-exedens had been practically given up. The best division of the subject, in his opinion, was (1) lupus exedens, (2) lupus vulgaris, and (3) lupus fibrosis, or fibroid tubercle of the skin. In the first form, which was the most common, there was a catarrhal process going on, which was probably due to the action, not of the tubercle bacillus, but of other pathogenic organisms, which proliferated on the surface, but did not penetrate to the deeper parts. He had observed that the granulations were always covered by epithelium. In the second form the tuberculous process was unaccompanied by any secondary change. It might fairly be called miliary tuberculosis of the skin, or lupus vulgaris. The third form was uncommon. It occurred usually on the limbs as a single patch of small size. The lupus nodules were masked by thickening and diffuse redness of the skin. There was no tendency to ulceration. Microscopically there was found to be great increase of the fibrous tissue. Among this there were, especially towards the margin, tubercle follicles, but they were less numerous than in the other varieties. Regarding treatment their aim must be the destruction of the tubercle bacillus. He recommended excision in cases in which it seemed to be allowable. It was necessary to cut very wide. On microscopic examination he always found small tubercles perilously near the track of the knife. The only internal remedy of any value was cod liver oil, but it could only assist other measures. Of the thyroid treatment he had had little experience, but that Dr. Byrom Bramwell's first case had been enormously improved he was ready to admit. Scraping was not applicable to all cases. The tubercles lay in the denser tissue, from which the spoon could not remove them. His plan was first to endeavour to remove the secondary changes and then to attack the tubercle. When there was much loose œdematous granulation tissue it should be thoroughly scraped. When there were apple-jelly nodules salicylic acid might be used. When there was much thickening he found blistering most useful. Then, having by one of these means brought the nodules to view, he proceeded to destroy them. For this purpose he found the galvano-cautery the best instrument. The great remedy for lupus was perseverance, and each case had to be followed through until the last tiny nodule had disappeared. He showed several cases already cured or presenting great improvement while still under treatment.—Mr. A. G. MILLER said there were three methods of treating lupus of which he would like to give his experience. They were: (1) Bier's congestion method, (2) scraping, and (3) excision. He had tried Bier's congestion method in several cases, and had reason to be very well satisfied with it. In the case of a patient who suffered from lupus of both feet it had given a much better result in the one foot upon which it was tried than the treatment by scraping and blistering which was employed upon the other. It seemed mainly to prevent the spread of the disease, and, with the addition of scraping, was an excellent plan of treatment. Scraping alone was of no use unless it was done very thoroughly. For removing nodules in the spreading area he recommended Squire's spoon. It was also a splendid diagnostic aid; it would only go in if there was a nodule. Following the recommendation of Sir Joseph Lister, he applied pure carbolic acid to the surface after scraping. With regard to excision, he agreed with Dr. Norman Walker that if it was to be successful it must be very free indeed. He showed a patient who had suffered from very extensive lupus of the face and neck which had been successfully treated by repeated scrapings.—Dr. ALLAN JAMIESON said the observation that Dr. Norman Walker had made as to there being epithelium upon the surface of the granulations in ulcerating lupus was an exceedingly interesting one. He thought that the fibroid form of lupus was generally found on the limbs merely because of the greater density of the skin in that situation.—Mr. JOSEPH BELL said that one of the greatest things that could be done to help the cure of lupus would be to explain both to the profession and to the public that it was a disease of extreme gravity and as bad as cancer, and that therefore it should be treated surgically as soon as the first sign of it was seen.—Dr. ALEXIS THOMSON said that he had come to the conclusion that the lupus nodules were not removable by scraping. Many of them were separated from the reach of the spoon by dense fibrous tissue. He could not give in to the view that excision should be limited to parts where a linear scar was allowable.—Dr. NORMAN WALKER replied.—Dr. ALEXANDER BRUCE read a paper on two cases of Nodose

Periarteritis of Syphilitic Origin. In both cases the secondary symptoms were remarkably severe, and the late symptoms came on very soon. Both passed extremely rapidly to a fatal termination. He found nodular swellings on the arteries of the brain. Microscopically they showed a cellular infiltration of the outer coat with caseous foci. There was no endarteritis. He believed that there was a distinct syphilitic disease of the arteries, which was primarily in the outer coat. The condition was easily overlooked and was probably much more common than was generally supposed.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a special general meeting, called to consider the policy of the society in regard to the midwives' question, the following resolution was carried unanimously: "That this meeting is of opinion that it would be for the advantage of the public and of the medical profession if midwives were better educated and also controlled in their practice."

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Thursday, April 12th, the President, Mr. RICHARD FAVELL, being in the chair.—Mr. EDWARD BARBER showed a case of Habit Spasm which he had successfully treated by bromide of potassium and arsenic.—Mr. WALFORD (Alfreton) introduced a patient with a large Aneurysm of the Thoracic Aorta.—Mr. PYE-SMITH showed a Brain with Purulent Meningitis the result of Suppurative Otitis.—Mr SNELL demonstrated about 100 lantern slides to illustrate clinical and operation cases.—The annual meeting for the election of officers for the ensuing year was held on April 26th, when the following elections were made:—President: Mr. Makeig Jones (Wath-upon-Dearne). Vice-President: Mr. Richard Favell. Treasurer: Mr. Simeon Snell. Secretary: Dr. Burgess. Committee: Mr. Pye-Smith, Mr. Dale James, Mr. W. F. Favell, Mr. Arthur Jackson, Dr. Porter, Dr. Cocking, Mr. Edward Barber, Dr. Wearne Clarke (Chesterfield), Dr. Alfred Robinson (Rotherham), and Mr. West Jones (Eckington). Pathological Committee: Dr. Arthur Hall, Dr. Ruxton, Dr. Rhodes, and Dr. Wilkinson.

Reviews and Notices of Books.

The Care of the Sick at Home and in the Hospital; a Hand-book for Families and for Nurses. By THEODORE BILLROTH, late Professor of Surgery in Vienna. Translated by special authority of the Author by J. BENTALL ENDEAN. London: Sampson Low, Marston, and Co., Limited. 1894.

THE third edition of the eminent surgeon's little handbook of domestic nursing appeared in 1888 under the supervision of Dr. R. Gersuny of Vienna, and contained an appendix on the structure and functions of the human body written by Professor Billroth. It is this edition that Mr. Bentall Endean has translated; and we say at once that he appears to have discharged the task very well. Professor Billroth, in passing in the briefest review other books on sick nursing that had come under his notice, found them all, however ably written, either too full or too bare, and generally the former. He considers, and we cordially agree with him, that in a book upon sick nursing, designed to be really useful to mothers and nurses, all elaborate anatomical and physiological exposition, and all detailed disquisition on the etiology and diagnosis of disease, must be entirely out of place. The regions of medical science and art which can be briefly presented in a popular form are necessarily extremely limited. If, true to his intent, Professor Billroth's medical explanations are meagre—he even omits much of the usual useless attempt to teach bandaging by printed instructions—his practical dictums on nursing are copious. Beginning with an essay upon the vocation of the nurse, wherein he lays due stress on the importance that a temperament fitted to the duties to be performed should be present, he passes to the general rules of surgical nursing. Nothing is too big and nothing too small here for his attention. Bedsores and the gangrene of decubitus come in for mention, but so does the need for care with regard to the patient's pose in bed, with regard to his body linen, and even with regard to shaking up his pillow. The fifth chapter, which deals with nursing in particular relation to fever patients, will well repay perusal; it is so simple and yet so informatory. More or less as appendices we find a chapter on first aids in accidents and instruction in the best method of attempting the resuscitation of the hanging and drowning, and a few words on food and diet.

The little book shows that Professor Billroth, the eminent scientific surgeon, having decided to treat in a popular manner of subjects which to many in his position would have had but a trivial interest, at once determined to carry out the task as thoroughly as if he had been invited to write a monumental essay on an obscure surgical problem. "The Care of the Sick at Home and in the Hospital" is a wise and useful work, and we have great pleasure in recommending it not only to the attention of those for whom its author specially designed it, but to many who believe that from their youth up they have known all these things. They will find that they have been mistaken.

Instruction and Amusements of the Blind. A Reprint in 1894 of the Essay by Doctor GUILLIÉ, Director-General of the Royal Institution for the Blind at Paris. Published in 1819. London: Sampson Low and Co. 1894. Pp. 153.

THE occupation and amusement of the blind are subjects worthy of much thought and contrivance. Blindness, as a multitude of instances testifies, may be associated not only with good but with the highest intellectual powers and endowments, and those who have the misfortune to be born destitute of this portal to wisdom are capable of receiving instruction through the other senses which renders them hardly inferior to those who possess the power of vision. This reprint is, we are told, issued by the desire and at the cost of a gentleman who for many years has taken a deep interest in the blind and who believes that, owing to recent legislation on the subject, the book will be found useful as well as interesting. It is divided into three parts. The first deals chiefly with the faculties and capabilities of the blind and shows that they may possess excellent memories, so that, according to Charlevoix, in Japan the records of the most important events are confided to the memory of the blind, and that they are also often good mathematicians; in the second part the history of numerous blind persons who have been celebrated in the arts and sciences is given; whilst in the last part the various modes of teaching the blind are discussed, with the occupations for which they are best fitted. Amongst them are knitting, netting, spinning, making list shoes and catgut whips, weaving, making straw chair-bottoms, rope making, basket work, and other employments. Writing and reading by means of raised characters they easily learn. The book is a very entertaining one from beginning to end and though written three-quarters of a century ago will well repay perusal to-day.

Man an Organic Community. By JOHN H. KING. London: Williams and Norgate. 1893. Two vols.

ACCORDING to the sub-title these volumes are "an exposition of the law that the human personality in all its phases in evolution, both coördinate and discoördinate, is the multiple of many sub-personalities." The following extract from the introduction gives an outline of the author's general position: "There are no sovereignties in the natural world, no autocratic ruling and presiding entities; the volcano, the earthquake, the heaven-aspiring mountain, represent only the combined energies of their many special atoms; even the great ocean itself is constituted of minute atoms, each of which bears its part in the great tidal wave that encompasseth the earth. So is it with all organisms, even man. The humble leucocytes in the blood, the innumerable cells

that give substance to muscle and bone and sinew, are of the same coördinate energy and origin by differentiation as are the cortical atoms and the nerve elements; the oneness of the organisation is due to the common affinities in all the parts. It is not the *ego* which builds up the man, but the self-contained omnipotence of growth that pervades every vital atom." The author proceeds to examine the ordinary conception of human personality as consisting of a material organism and an indwelling *ego*—"the ghost spirit";—and, from a review of a variety of facts, such as the heterogeneity of mental phenomena, the varying characteristics of the individual at different epochs of life, the preponderance at some periods of life of certain instincts and impulses (e.g., the sexual), the phenomena of reversion to ancestral type, &c., he reaches the conclusion that "the human personality is no mere ghost spirit, soul, or other simple nameless entity, unique in its individuality, and manifesting through its single will the various attributes as qualities that characterise its nature. According to all embryonic observation it only passes from the unicellular stage by becoming a coördinate combination of two or more cells, through which it obtains the power of multiplying and aggregating parts, which parts have equal power to attach themselves to the two or more primary elements, each manifesting its own special differentiation, through the coördination of which it constitutes a part. Every multicellular organism is a social organism made up of as many distinct parts as its status in evolution expresses. There is no central sovereignty, no committee of public safety, no representative board. When the coördination is harmonious each member, self-impelled, as in a community of ants, fulfils its special duties, which are implied, as in the distinct forms of ants, in a common community by its structural character and its mental qualities."

It would be a mistake to dismiss speculations like these as fanciful and valueless. No doubt to many readers they are more or less unreal—*ils manquent d'actualité*, to use a convenient Gallicism; but the metaphysical student will recognise that they touch the foundations of the fundamental conceptions and beliefs of the western world. Mr. King's views seem to us to involve Pantheism—if we may for convenience employ such a discredited expression—and they are much more akin to the root beliefs of the East than those of the West. We have no doubt the writer would abjure such a term as Pantheism and would maintain that his views are simply the necessary corollary of the accepted facts of physiology, embryology, and psychology, but the independent life and energy of the molecules composing the human body are only conceivable as the expression of a universal and ever active force which to the theist is simply the manifestation of deity. To pursue this topic would take us far beyond our proper province. Mr. King's volumes contain some doubtful science and much doubtful speculation, but they exhibit much learning, ingenuity, and industry. Their perusal would form no bad corrective for the cruder forms of the dualism which pervades so much contemporary thought.

Transactions of the American Gynæcological Society. Vol. XVIII. For the year 1893. Philadelphia: William J. Dornan. 1893.

THIS volume of the Transactions of the American Gynæcological Society contains many papers of interest and practical value in relation to the subjects concerned. Dr. Winckel of Munich has a noteworthy paper on the Necessity of the Union of Obstetrics and Gynæcology as Branches of Medical Instruction. He says: "It thus results that obstetrics and gynæcology have to do only with varying conditions of the same organs, partly physiological, partly pathological, so that the two departments are thus practically inseparable, because, for example, all abnormalities of the female sexual organs, excepting only those defects of development that render conception altogether impossible, may prove a source of difficulty in parturition, and so require treatment at the hands of the obstetrician. ..... How could an obstetrician not perfectly familiar with, and thoroughly able to carry out, cœliotomy hysterectomy, the Porro operation, myomectomy, &c., properly perform his duty? ..... If he is no gynæcologist he should also be no obstetrician."

There are no less than seven papers dealing with the Operative Treatment of Fibroid Tumours of the Uterus. Dr. Lusk has a paper on the Technique of Primary Cœliotomy in Advanced Ectopic Gestation, with report of a successful case. Dr. Cullingworth contributes a paper on Retention of Menstrual Fluid in cases of Bicornate Uterus from Unilateral Atresia of the Uterus or Vagina, based on his rare and very interesting case of bicornate uterus, in which retention of menstrual fluid occurred owing to the absence of communication between the right half of the septate cervix and the vagina. He first performed an exploratory operation to ascertain the exact relation of the parts; then, after closing the abdominal wound, he incised the swelling produced by the dilated right half of the cervix from the vagina. Five days later the septum between the two halves of the cervix was divided with scissors. Subsequently the cervical canal remained single, communicating freely with both cornua. Dr. Robert L. Dickinson of Brooklyn has a paper on Simple and Practical Methods in Dress Reform, with schedules of instructions to patients, and illustrations, the good intention of which, we fear, is likely to remain more conspicuous than the practical result.

The Medical Annual, 1894. Bristol: John Wright and Co.

THE publishers of this annual have this year rather altered the plan of the work and instead of appointing editors to the various sections have in most cases "presented the records of the more important contributions to medical science in the form of direct communications from those who have made them." This in some instances may answer very well, but we doubt the advisability of this method being adopted to the extent which it has been this year. We think that the careful sifting out of the material by responsible editors would prove of more benefit to the busy practitioner than the long articles now presented to them. Moreover the greater number of articles are simply abstracts inserted without the authority of any name to guarantee their importance or usefulness. Most of those articles, however, which are not anonymous are fully up to the usual standard of this useful publication. An excellent article on Rheumatoid Arthritis, dealing mainly with the differential diagnosis, is from the pen of Sir Alfred Garrod. The most noticeable, however, is the section on Insanity, by Dr. James Shaw. This forms by itself a most valuable monograph on Facial Expression as one of the Means of Diagnosis and Prognosis in Mental Diseases; it is beautifully illustrated by an extensive series of plates, and we congratulate Dr. Shaw on his work. Diseases of the Eye have been entrusted to the care of Mr. Simeon Snell and those of the Ear to Dr. Dundas Grant, and both these sections are admirably written and illustrated. Amongst the other contributors we note Professor Chapin, on Children's Diseases; Mr. Hurry Fenwick, on Bladder Tumours and Renal Surgery; Dr. Colcott Fox, on Skin Diseases; Mr. Arbuthnot Lane, on Fractures of Lower Extremities; Dr. Greville Macdonald, on Adenoids and Hay Fever; and Professor Ogston, on Cancer; but we miss the names of many contributors who have hitherto been connected with this publication. One other point we would draw attention to is the liberal way in which advertisements are interleaved between the list of contributors, "contents," preface, general index, and between the latter and general body of the work; it would be a great improvement if the two parts of the book (business and professional) were kept entirely apart.

THE LANCET.

LONDON: SATURDAY, MAY 12, 1894.

SIR ANDREW CLARK died young. Dr. HEBERDEN—"the virtuous HEBERDEN"—died at ninety-one. Dr. MEAD—in whose history and character Mr. HUTCHINSON very happily traced much likeness to those of Sir ANDREW CLARK—died at eighty-one. It will be some consolation to those who mourn Sir ANDREW CLARK, in his family and in the profession, that his most illustrious patient has been left with strength enough to pronounce on his late physician and on our profession one of the finest eulogies contained in literature. It was apparent to all who were present that Mr. GLADSTONE came with some difficulty. For the first time in his life he had to speak sitting. He himself significantly said that it was with "some small effort" that he was present; but "to have been absent would have been a standing cause of grief and mortification." We recognise the effort he made, and in the name of Sir ANDREW CLARK'S profession we thank him for it.

Mr. GLADSTONE takes, as he has taken before, a cheerful view of the profession and its prospects. Other professions, he thinks, have had the start of it—notably the law. Men in earlier stages of society thought more of property than of life, and made more of a profession which was necessary for its protection than of one which aimed at preserving health and prolonging life. But in the future it will not be so. Mr. GLADSTONE sees that with the increase of wealth, of inventions, and discoveries there will be an increase of enjoyments and wants, and in connexion with these wants and enjoyments there will, he fears, be an increase of infirmity and disease. It may seem rather a reflection on modern society that its increased enjoyments should involve increased infirmities and disease. But they certain will do so unless society takes medical science into consultation, and orders its enjoyments and its civilisation in accordance with the great principles of health and natural life which it is the business of medicine to inculcate. Mr. GLADSTONE shows that he clearly perceives the growing fitness of medical science to cope with the problems—"the difficult, the almost insoluble problems that are constantly presenting themselves to the minds of medical men." He speaks with a large experience. He has seen two generations of medical men and has "known in sixty years many of the eminent and distinguished members of the profession." His memory will include men who attended George III. and his Majesty's contemporaries, as it includes our leaders of to-day; and he is clear in his testimony that, great as has been the position of the profession in anterior generations, it is a position "continually advancing and continually rising."

Few men in the world outside the profession can speak with such authority. The profession may well feel the responsibility as well as the pleasure of such a judgment, and it can best show its gratitude and its appreciation of such a compliment by diligently studying the qualities in the profession and in the individual member of it singled out by Mr. GLADSTONE as a justification for his praise. Briefly they are, as we have already said, a growing capacity to deal with the difficult problems of disease as a factor in human nature and in human life. This is a prime necessity of the medical man. He cannot become superfluous. The ordinary man is too deeply involved in common affairs to understand or relieve his own diseases, and the understanding of them becomes more and more a highly difficult and complicated duty. The "capacity" involves a sound knowledge of half-a-dozen contributory sciences. Mr. GLADSTONE tells us that he is in a position in some degree to measure the growth of capacity in medical men, and his report is satisfactory. New problems of biology not dreamt of when he entered Parliament have arisen, and the profession is tackling them powerfully—"grappling with the situation." We might not have known, but for this occasion, that so keen an intellect as Mr. GLADSTONE'S was detached enough from its ordinary pursuits to make such an observation. We rejoice that he has put it on record. We feel sure that it is just, and that men in every rank of the profession will feel a desire to make it more and more true. But the ex-Premier went deeper into the subject, as all must who would rightly estimate the *rôle* of the profession in society. He recognised that, by public and professional consent, Sir ANDREW CLARK had been recognised as in many respects a *typical* physician. There have been many members of the profession who have done more in the way of research and discovery than Sir ANDREW CLARK did, but there have been none who figured more largely in the public eye, who saw a larger number of patients, rich and poor, and who more promptly contrived to grapple with their diseases and to initiate the ways of relieving them. Research is one thing, and practice is another, and they are almost incompatible. It was in the region of practice, in his contact with patients, and in the mastery over them, and over all that bore upon their cases, that he showed himself the great physician that he was and proved his capacity of controlling patients of the powerful classes that are in the habit of controlling others. All these qualities would have been ineffective if he had not also had perfect sympathy with men who were labouring in lines of professional work which he had not the time, and perhaps not the faculty, to pursue. He was the friend and the champion of such men, often little understood by the general public, who little know how much the busy physician owes to those engaged in research and discovery.

Perhaps the most impressive part of Mr. GLADSTONE'S speech was that in which he dealt with the moral elements essential in the character of a medical man, and which he found highly developed in Sir ANDREW CLARK. "The position of medical men," he said, "is one which brings them more and more within the intimacy of the family circle," and in order that they may be worthy of that confidence more than mere faithful study or even ardour is necessary: "It is requisite that qualities that give force to *character* should be exhibited by them in connexion with professional skill." We have no chair in our schools as yet for the study of those qualities which constitute character, on which the fame of the profession and of its individual members rests as much as on

professional skill. We can only cultivate them by the study of individual instances. Sir ANDREW CLARK had them in a high degree; and happily he did not stand alone. The wide possession of them by medical men gives its character to the profession for kindness, for purity, for honour, for intelligent faith. The profession is rich in names that are an inspiration. Not to mention living instances, THOMAS BROWNE, SYDENHAM, MEAD, FOTHERGILL, HEBERDEN, ALISON, STOKES, WATSON, are examples that occur to us. The very advance of our professional knowledge makes this ethical element in our profession, as we often take occasion to say, more important than ever; and he who does not cultivate it as he cultivates his biological and therapeutical knowledge is unfaithful to his high calling. We can only, in conclusion, express our wish that the scheme proposed at the meeting for the commemoration of Sir ANDREW CLARK, and which Sir JAMES PAGET assures us will meet both the wants of the sick poor and promote medical science, will be completely successful.

CONTINUING our review of the Paris Convention, we come next to a series of regulations comprising forty-two separate articles which have to do with the measures that are to be adopted on board any vessel deemed to be a pilgrim vessel. Care having been taken as to the character of the vessel and its accommodation by preliminary inspection and otherwise, arrangements are insisted on as to an ample and wholesome water-supply to be furnished gratuitously to every pilgrim at the rate of five litres daily; as to food supplies, the prices of which are to be affixed in various parts of the vessel; and as to the sufficiency and quality of drugs, instruments, and other like necessaries. Every vessel carrying a hundred pilgrims must carry a duly qualified medical officer, and whenever the number of pilgrims on board exceeds 1000 a second medical officer must be provided. His duties are defined, and the sanitary offices to be maintained on board are specified; facilities for the distillation of sea water or the sterilisation of any faulty supply on board are prescribed; and it is laid down that hospital accommodation must be provided at the rate of 5 per cent. of the pilgrims and that the space allotted to the sick must not be less than three square metres.

Two other points are of importance in these regulations. The first relates to the amount of space to be allotted to the pilgrims between decks. This was a matter that seems to have involved much discussion. The French programme laid it down that every pilgrim should have a space of two square metres between decks, this space to include room for such personal effects as he required during the voyage; and we are informed that the objections which were raised by the Anglo-Indian delegation as to this created some surprise and a good deal of disappointment. This we can well understand, for we are quite certain that the well-known sympathies of English public health administration and of the Medical Officer of the Local Government Board would not have been adverse to allowing a pilgrim as much room on which to lie down as the Italian delegate is credited with having asked, on the ground that in his country they gave that space to a dead body in the cemetery. The difficulty in this matter must have been with our Indian Government and not with that of the Home authorities. Thus, Section 18 of the Native Passenger Ships Act, 1887, which extends "to all native Indian subjects of Her Majesty without and beyond British India," lays it down, even as regards "long voyages," that a steamship need only "contain in the between decks at least nine superficial feet and fifty-four cubic feet of space available for every passenger." Here we have the explanation of the attitude of Great Britain in the matter. Indian legislation would be required with a view to acceptance of the French proposal; and it is obvious that such a proposal as this, which was never made known until the Conference had been some time at work, could not have been submitted to the Indian Government in advance, and that they could therefore hardly be expected on the spur of the moment to alter an Act which was only amended in 1887. The precise reasons for maintaining so low a standard as one square yard of surface were doubtless explained by our Indian delegate, but until the proceedings of the Conference are published we cannot easily guess at the grounds for the small standard laid down in the Indian Act. However, we are glad to learn that, in deference to an appeal made by several Governments, who felt themselves hampered by adherence to the Indian regulation, the British delegates have undertaken to urge upon this country that a larger amount of space should in the future be accorded to pilgrims.

One thing is certain, and that is that pilgrim vessels are, in the eyes of the public, generally looked upon as being grossly overcrowded with passengers who consist to such an extent of dirty and impoverished people as to constitute a nuisance of a very grave character. But this pauper element raises difficulties at every turn. One of these we dealt with at some length last week, and we can well understand that our Indian Government, in view of their feeling in this matter, may have some hesitation in adopting a standard of space which would necessarily add considerably to the cost of the sea-journey to and from Jeddah, and which might thus be looked upon by the more uneducated amongst the pilgrims as being an interference with their performance of a religious rite. Such considerations doubtless led to the fact that the Anglo-Indian acceptance of the Convention leaves this matter in reserve. This point is, in fact, the second one as to which Great Britain made reservation in signing the Convention.

But the fear of interfering with the pauper element in the pilgrimage may well be carried too far, and we are therefore glad to note, as the second point of importance in this code of regulations, that the Convention requires that the captain of the ship shall be responsible for the payment of the sanitary dues, which are to be included in the price of the ticket for the journey. We have no sympathy with a number of sanitary payments which are exacted by various Turkish and Meccan authorities from the pilgrims; but, so far as dues payable at ports and before landing are now arranged under the Convention, we think this clause an excellent one. Hitherto the pauper pilgrims have largely pleaded poverty, and many have got off scot-free; still more have been helped by their more wealthy co-religionists; but, after all, the new rule will only require that this act of charity shall be displayed at the commencement instead of in the middle of the journey to the holy places, and it will have the advantage of being done rather as a voluntary act than under the compulsion of the circumstances which arise

at the moment when the pilgrim finds his way barred by an exacting official.

A special chapter is devoted to fines for breaches of the various articles of the Convention which concern pilgrim vessels, and the captain is held responsible for their payment, subject to an appeal, first, to the Consul of his own country, and, secondly, to a court of the Consular body at Constantinople, on which court the nation under whose flag the vessel was sailing shall always be represented. The highest fine imposed under the Convention is one of £T300, and this is for failure to carry a duly appointed medical officer whenever over one hundred pilgrims are on board. This fine does little more than cover the salary of such medical officer, and hence it cannot be regarded as an excessive one. There is also a fine of £T5 per pilgrim carried in excess of the number for which the vessel is licensed—an imposition which it may be hoped will prevent masters of vessels from crowding their ships at intermediate ports in the Arabian Sea and the Red Sea after leaving British-Indian ports.

We defer for a concluding article consideration of those portions of the Convention which deal with the passage of the pilgrim up the Red Sea to Jeddah, and with the conditions under which the return journey from Mecca and Medina is to be undertaken.

OUR readers may have remarked that we have frequently had occasion of late years to take notice of a tendency in the development of society or of the State to take more and more into account the necessity for medical service. The Secretary for Scotland, the other day, in forecasting the reconstruction of the Local Government Board for that part of the United Kingdom, proposed that of three active members one should be a medical man with an adequate salary, who, he said rather vaguely, would do medical work both in the office and in the country. Some venerable institutions are threatened with a process of disestablishment. It is no part of our right or duty to express any opinion on the justice or expediency of subjecting them to this process. We only allude to it here as incidentally supplying another illustration of the tendency to an opposite treatment of the great profession which we have the honour to represent. The Home Secretary in his speech on April 26th, in which he asked leave to introduce a Bill for disestablishing the Church in Wales, was compelled to explain to Parliament the uses to which he would apply the money which such an operation would place in his hands. And it is this part of his speech that calls for our attention and that of the members of the profession. It suggests to us that there is a tendency on the part of the State to endow and establish medicine. The establishment of medicine may be a good thing or a bad thing. But it is well to take account of the beginnings of it. And we think we see some of these in the Home Secretary's Bill. What are the proposals of Mr. ASQUITH as to the use he would make of the principal moneys which will be liberated if this Bill becomes law? Let us quote his words. The purposes to which the property may be applied are as follows:

1. The erection or support of cottage or other hospitals and dispensaries or convalescent homes.

2. The provision of trained sick nurses for the poor.

3. The foundation and maintenance of public parish or district halls, institutes or libraries; the provision of labourers' dwellings to be let at reasonable rents, and allotments; technical and higher education, including the establishment and maintenance of a national library or museum, or academy of art; and any other public purpose of local or general utility for which provision is not made by statute out of public rates.

Such is the list of purposes to which Mr. ASQUITH proposes to apply a large sum of public money, and it will be noticed that cottage or other hospitals, dispensaries and convalescent homes, and nurses for the poor head the list, and take precedence of public halls, labourers' dwellings, and a national museum or library. Apart from all vexed questions of Church and State, and apart from the merits of the individual proposals themselves, we regard them as significant. And they do not stand alone. We believe we are not wrong in supposing that in compiling this list of public purposes for the application of the money that he intends to provide he is only following the example of Sir CHARLES CAMERON in his Bill of last year for the disestablishment of the Church of Scotland. Of course, in a mere poor-law sense, medical provisions have existed more or less for years. They were more defined by the Poor-law legislation of 1834. But still, by that legislation the definition of pauperism was clear, and a man could not at the same time receive medical relief and retain his rights and privileges as a citizen. A great change has been introduced by the Legislature, beginning with Mr. GATHORNE HARDY'S Act in 1867 for the better care of the sick poor. But even in this the principle was kept intact that the receipt of medical relief, as of any other relief, from the rates involved the loss of political privilege. Since then, and especially in connexion with the great hospitals of the Metropolitan Asylums Board, the principle of State- or rate-supplied relief, *gratuitously and without loss of political status*, has been quietly—we had almost said insidiously—introduced and carried; and the proposals of the Home Secretary and of Sir CHARLES CAMERON in their respective measures remind us that the disestablishment of the Churches means—or is intended to bring about in some sense—the establishment of medical institutions such as cottage hospitals, other hospitals, dispensaries, and convalescent homes. It is undeniable that in some country and remote districts there is, unhappily, need for the State to see to the supply of competent medical service and relief—to assume that the people, of their own means, cannot provide the skill, the nursing, the hospital accommodation which are needed to avoid scandalous misery and neglect. A year or two ago we pointed out that there are parishes of Scotland where there are two or three churches in each, of almost identical doctrine, but where there is no isolation hospital, and where a patient smitten with typhus fever, scarlet fever, small-pox, or diphtheria might be left untended save by the faithful parish medical officer, who might in the last result have to see his patient coffined, and perhaps in the discharge of the duty contract the disease himself and incur his own death. This is not a picture of the imagination, but drawn from history. The tragedies of midwifery in remote parts are unknown to the public, and likely to be so from their very nature, and the much-enduring power

of women among the poor. But little imagination is necessary to guess what they must be. No wonder, then, that statesmen begin to think of supplying this lack in the national service. Wherever the money is to come from, it should be forthcoming for necessary purposes. We hold it to be distinctly the duty of the State to provide necessary and ready medical help, including nurses, for the poor even in remote parts. In sparse country districts, in islands or highlands, no very great expenditure would be necessary to place skilled medical assistance and a skilled nurse at the service of the poorest and so save many a life that is now lost or rendered irretrievably miserable. Such an establishment of medicine as a public institution, provided it is done on generous principles and with due restrictions in the selection of cases, will be to our credit as a State, and is indeed a thing to which we are committed, apart from the Welsh and Scotch Disestablishment Bills. But, while such provision for extreme cases should be generously made, care should be taken to do nothing that people can do for themselves. By all means let Medicine and its resources of skill and kindness and trained nursing be established for extraordinary cases and in remote parts, but let the voluntary principle be left intact for all ordinary people in the ordinary circumstances of life. We are satisfied that it is better as regards the ordinary ailments of families that they should make their own arrangements and have their own private medical attendant. It is better as respects the preservation of that independence which is so valuable an element in character, and it is better in their medical interest. They fare better at the hands of a private practitioner, who learns to take a deeper and more continuous interest in them and their families than is to be expected in a mere public official.

Annotations.

"Ne quid nimis."

LORD HERSCHELL AT THE UNIVERSITY OF LONDON.

LORD HERSCHELL, at his first appearance as Chancellor of the University on a presentation day, made a strong, but very temperate, speech in favour of the reconstruction of the University. He fully recognised that there was a large number of the graduates who were of opinion that the scheme proposed by the Gresham Commission would be prejudicial to the present work of the University and, instead of recommending a series of compromises on points which were absolutely opposed, suggested that the best solution would be the reference of all differences to an independent body—we presume, a Statutory Commission. A Statutory Commission, however, when appointed, cannot alter the main lines of the scheme and must limit itself to making arrangement for the best working out of details. Everyone is agreed, as Lord Herschell says, that the existing University is doing a great imperial work, but that there is also a great demand for a teaching university to bring together the teachers and the educational means and opportunities of this huge metropolis. The essential question at issue is, Can these duties be better fulfilled by one or two universities? Most of the Commissioners, and the majority of the Senate of the University and of the teachers in the metropolis, deprecate the foundation of a second university and look forward to the creation of a great institution like the University of Berlin or that of Strasburg. These universities, however, do no imperial work, and the existing university is unique in having taken as its *rôle* in education the duty of examining candidates and fixing their curricula of study throughout a vast empire. Lord Herschell says that it ought to be a condition that if any change is made in constitution such change should not render the University less fit and able to discharge the work which it has done so well for all these years. The whole of the tenour of the report of the Commission, however, is to the advantage of the teachers and of their internal or collegiate students; whilst the claims of the external, or private-study, candidates are obviously placed in a subsidiary position. Again, the maintenance of the present pass standard at the level of an honours' standard, as laid down so rigidly by Lord Herschell, will maintain the injustice to the London medical student, which it should be one of the first objects of the University to remove.

DRUGGISTS AND CERTIFICATES OF DEATH.

SIR BENJAMIN WARD RICHARDSON has lately suggested in *The Asclepiad* that druggists should have legal power to prescribe over the counter. We have generally great pleasure in reading anything suggested by Sir Benjamin Richardson, but here we must join issue with him in a very decided way. We cannot see what difference the counter makes. A prescription over the counter may be as fatal, as much out of place, as one in a house. Besides, what guarantee has he that the counter would act as a sufficient line of demarcation? At an inquest at Birmingham it has just transpired that a druggist promised to visit a child, for whom he prescribed, if the patient grew worse, and it even seems that he granted a certificate of death, and the mother said that he promised to do so in the first instance. We feel sure that a little reflection will convince Sir Benjamin Richardson that he has made a dangerous and a retrograde suggestion, and that he will reconsider it. Surely the virtue of all recent medical legislation is not to be compromised in this fashion.

BARRACK ACCOMMODATION.

MR. CAMPBELL-BANNERMAN, in answer to questions from Mr. Hanbury and Colonel Lockwood in the House of Commons on the 4th inst., explained what were the bath and ablutionary arrangements and the provision of day-rooms in barracks, together with the supply of bedding and sheets for soldiers. As regards the first, he said that in the new barracks at Aldershot flues had been let into the walls of the kitchens, and baths are provided by regimental arrangements. Hot water was not generally supplied at the public expense to bath and ablution rooms except in the case of barracks where recruits are received. Most medical officers, we suspect, have long held the opinion that in this respect the army is quite behind the times, and we agree with them. The bath-rooms in barracks are rarely used, for the simple reason that they are generally damp, cold, comfortless places and hot water cannot be obtained. They may be used in summer, but they are almost certainly not in winter, and the money laid out on their provision is consequently to a great extent wasted. It is not to be expected that soldiers will leave their barrack rooms and cross an open space during the winter season for the purpose of taking a cold bath; indeed, we question whether it is at all desirable that they should do so in the case of regiments who have served in hot climates abroad. There should, in our opinion, be an opportunity afforded in every barrack for a soldier to have a warm bath once a week. This seems to us necessary merely as a matter of health and cleanliness. The bath-houses in barracks are usually in cold, draughty, and exposed positions, and are often dark or insufficiently lighted, and without comfortable and proper conveniences

for the soldier. If reasonably comfortable baths were provided and supplied with hot water in winter, as they should be, there is no doubt that they would be used, and we hope the War Minister may see his way to do this. As regards day- or dining-rooms for soldiers, it is, of course, on sanitary grounds very desirable that soldiers should not eat their meals and keep some of their food in the same rooms which they have to occupy during the day and sleep in at night. A change in this respect will probably have to be effected; it has, Mr. Campbell-Bannerman tells us, already been introduced in some places. In the matter of a more frequent supply of clean sheets and bedding we cannot see why an increased annual expense of £10,000 should be any barrier to this being done, and why the soldier should not also have the other matters to which Mr. Campbell-Bannerman alluded as more likely to conduce to his advantage and comfort. We freely admit that a great deal has been done for the soldier of late years, but there still remain things to be carried out to which we consider him reasonably entitled. It may be unreasonable to expect that such additions and reforms can be effected all at once, but they should be introduced into all new barracks and gradually carried out, as far as practicable, in old ones.

MEDICINE AND THE DRAMA.

MR. HENRY ARTHUR JONES, of all our dramatists the one who takes his occupation the most seriously, was entertaining and suggestive in his speech on Saturday last, when proposing the toast of "The Medical Officers" at the dinner in aid of the funds of the Hospital for Sick Children, Great Ormond-street. In a pithy and humorous manner he summed up the tendencies of the Ibsen school to demonstrate on the boards of the theatre the objective and subjective results of heredity and pathological change. "Some of my more advanced and adventurous brethren," he said, "have gone so far that the only question that remains before them now is, What zymotic disease shall I next annex for treatment before someone else snaps it up?" For his own part he promised to draw the line at the realistic representation of mumps and measles! To speak seriously, we are glad to hear it, and it is what we should have expected of a dramatist of his healthy and admirable stamp. The right of the stage to deal with all the problems of life is a subject that has been much discussed of late and is still open to much discussion; but as long as the theatre is a place of resort for the young as much as the old, for the weakly as much as the strong, for the woman as much as the man—so long, surely, an appreciation of the general fitness of things should debar certain topics from ventilation.

THE EXPLOSIONS AT WALTHAM ABBEY.

THE increasing perils to which those engaged in the manufacture of the recently introduced high explosives are exposed are only too sadly exemplified in the series of disasters which have occurred at the Waltham Abbey factory since the beginning of the present year. Thus, connected with the preparation of cordite, no less than three disastrous explosions have occurred since last January, and one from gunpowder, in which unfortunately several lives were sacrificed. The fourth explosion took place on Tuesday last in the nitro-glycerine washing-house, and almost immediately afterwards the contents of another house situated thirty yards away, consisting of finished nitro-glycerine, became ignited and exploded. Four men, including the chemist in charge, lost their lives, while more than twenty persons were found to have sustained injuries, which were, for the most part, due to falling glass. Amongst these were the deputy manager and Mr. Thomson, and the son of the Director-General of Ordnance Factories. It is well known that, unless certain precautions are rigidly adhered to in the course of the manufacture of nitro-glycerine as well as gun-cotton, both of which are constituents of cordite, terrible consequences may follow; we allude, for instance, to imperfect washing from free acid in both products, and the undue rising of temperature during the formation of nitro-glycerine from glycerine and nitric acid, which led to serious issues during the early manufacture of these nitro compounds. But we are loth to believe that every part of the process at Waltham is not under the strictest and most careful superintendence; and, this being so, it behoves the Government officials to inquire very carefully into the probable cause of the recent disaster, so that the lives of the operators may have every possible protection as far as it is within human power under the circumstances to afford. It transpired, however, in the House of Commons on Wednesday last, according to the reply given by Mr. Woodall to Mr. Hanbury, that the manufacture of explosives at Government factories is not subject to the same strict rules as are imposed on private firms. Some increased precautions in this direction are therefore most urgently desirable, especially in view of the series of disasters and fatalities which have happened at Waltham Abbey in the comparatively small space of four months.

THE INFLUENCE OF SUGAR AND TOBACCO ON MUSCULAR EFFORT.

IN 1892 an important series of experiments were undertaken by Dr. Warren Lombard upon the influence of tobacco on muscular effort. The same subject has been investigated by Dr. Vaughan Harley, and the results of his observations are recorded in the first part of the *Journal of Physiology* for the present year.[1] Dr. Vaughan Harley agrees with Dr. Lombard in considering that the amount of work done by the same set of muscles at different times of the day undergoes periodical variation, so we may accept as a fact that there is a diurnal rise and fall in the power of doing voluntary muscular work, in the same way as there is a diurnal rise and fall in bodily temperature and pulse. It is remarkable, however, that, instead of the greatest amount of work being done, as might have been expected, on rising in the morning after a good night's rest, it is found that at 9 A.M. the smallest amount of work is accomplished, the powers of doing muscular work in Dr. Harley's case increasing each hour up to 11 A.M. Immediately after lunch there is a marked rise, followed an hour later by a fall, whilst again an hour later, or about 3 P.M., the amount of work accomplished reaches its maximum. Then, from some unexplained cause, there is a notable fall at 4 P.M., which is succeeded by a rise at 5 P.M., after which a progressive fall takes place during each successive hour until dinner. Even during a prolonged fast more work was capable of being executed from 11.30 A.M. to 4.30 P.M. than at 9 A.M. Dr. Harley admits, however, that further experiments are required to determine this point satisfactorily. It was found in his experiments on the muscles of the middle finger that in corroboration of a well-known physiological fact regular exercise caused increase in the size of the muscles brought into play and at the same time up to a certain point rendered them capable of performing more work. Sugar, taken internally, proved to be a muscular food, since, when taken on an empty stomach, there was on that day an increase of 25·6 per cent. in the work done by the left middle finger, while the right middle finger showed an increase of no less than 32·6 per cent. Dr. Harley varied the experiment of administering sugar in many different ways, but always with the same result. The

[1] Both Dr. Lombard's and Dr. Harley's experiments were performed in the same way—viz., by connecting the middle finger by a cord with a weight running over a pulley and ascertaining the distance through which the weight could be lifted in a given time.

vigour of the muscles was always augmented. The influence of tobacco was not so marked in Dr. Harley's experiments as in those of Dr. Lombard. Dr. Harley considers that moderate smoking in one accustomed to it neither increases the amount of work nor retards the approach of fatigue. It perhaps slightly diminishes muscular power and hastens the onset of fatigue. Dr. Lombard holds that the use of tobacco has a powerful influence in this direction. Such experiments as these, even when no absolutely definite result is arrived at, are of importance, and if carried out with due precautions against error in a large number of men would undoubtedly constitute the most satisfactory basis on which a sound system of training should be carried out.

MEDICAL FEES IN DUNDEE.

THE *Dundee Courier* reports an action in which Dr. Robert Miller sued Mr. James Kyd, Inspector of the Poor-law Board, for a guinea. This was for a visit to an old woman in the poor-house. The visit was made at the request of the governor of the poor-house, the regular medical officer and his substitute both being away. The Sheriff laid down the most astounding doctrine that the board was not bound to pay Dr. Miller. He refused to sustain the charge on the ground that there was no contract between Dr. Miller and the board, and that the call to do work made by the governor of the workhouse was a call to do charitable work. This may be law, but it is not justice. We should require a higher authority than that of Sheriff Campbell Smith to regard it as law. It is monstrous to say that a medical man is to be summoned urgently and in his professional capacity and have it regarded as a charitable matter. The amount of the fee charged may be a matter for discussion. For a public body to pay a guinea to a medical man for responding to an urgent summons does not seem excessive; but the doctrine that he had no claim is not calculated to raise public opinion on law and its administrators in Dundee.

EARTH, SEA, AND SKY ADVERTISEMENTS.

LORD ROSEBERY'S most amusing speech at the Royal Academy dinner was in no part so telling as in that in which he dwelt on the various advertisements now occupying earth, air, and water. It is not altogether that the landscape is affected by hideous boards, which, by spoiling its beauty, influence injuriously the good taste of the traveller: it is the effect of the reading of those boards on the health both of mind and body against which we, too, would raise a protest. When a person leaves his home to travel through the country, whether on business or pleasure, there is always, in properly conducted journeys, some benefit derivable from the charm and picturesque character of the landscape that comes before him. He forgets himself, his worries, his troubles, his pains, in the diverting objects he sees. There is the church forming the centre of the pretty village, calling up memories and suggestions which fill the mind with thoughts of the past and hopes of the future. There are the distant blue hill, the green meadow, the copse, the wood, the cottage, the castle, the park, the mansion; and connected with these there is always some bit of romance gathered from past readings and meditations which comes as a relief, a dream outside the busy world, changing the monotony of life, and by the very forgetfulness of past troubles giving a repose in variety which has the effect of cure in some instances, of relief in all. But what shall be said when from place to place the mind of the travelling sufferer is, *nolens volens*, forced to dwell on his own ailments, real or imaginary? Why is he obliged to learn that he has a liver that is not in working order; or that his digestion is, day by day, failing; or that he is getting every hour weaker and weaker; or that his heart is palpitating; or that his kidneys are involved in the universal break-up of his frame; or that his brain is altogether losing its balance; or that he is becoming prematurely old; or that, in short, he must soon die if he neglects to treat himself with some particular life-giving pill, potion, lotion, or plaster, to say nothing of two or three ointments which have the faculty of going direct to the bone. Lord Rosebery's humour ought not to be misapplied. There is many a true word spoken in jest, and, emphatically, his words were true. We hope he will not stop here, but that, holding the reins of power, he will go beyond the misfortunes of the Royal Academy and, pitying the misfortunes of the public generally, will suggest such legal measures as shall clear earth, water, and sky of these irritating abominations.

SANITARY ADMINISTRATION IN LONDON.

WE read in the public press that a member of the Sanitary Committee of the St. Saviour's District Board was last week fined £20 for being the owner of an insanitary house, which was ordered to be closed. This is undoubtedly a salutary lesson, but it is evidence of the difficulties of sanitary administration in some London districts. We always hope for better things from an improved system of London government, but under any system those whose interests are affected by the administration of a law are sure to find their way on to the governing bodies. The larger the areas of districts the less likely are personal interests to assert themselves, and this, no doubt, is a reason why the administration of the London County Council is more effective than that of some district authorities. There is, indeed, much to be said for governing London from the centre, if an efficient system of administration could be designed, and one which did not overwhelm the central body with detail. The proceedings of the Unification Commission are being kept secret, but obviously a well-defined scheme of this sort should be considered.

THE NON-ALCOHOLIC TREATMENT OF TYPHOID FEVER.

IN the April number of the *Medical Pioneer* there is a report by Sir Benjamin W. Richardson on the Treatment of Enteric Fever without Alcohol in the London Temperance Hospital. The cases treated from 1873, when the hospital was founded, to 1893 were 144; twenty-five proved fatal, but four of these were moribund on admission. Excluding these, we have a mortality of 14·5. Sir B. W. Richardson admits that this success is not enough to establish the superiority of the treatment, and, indeed, compares indifferently with that of some other hospital returns. But the great value of the paper is in its extreme fairness and in the care which the writer shows to be necessary before coming to hasty conclusions on this subject. He properly insists not only on the necessity of a large number of cases, but of extending the observations over a number of separate epidemics. The variation of fatality in different epidemics and seasons is so great that inferences drawn from the mere treatment are highly misleading. Another point of great moment, and one perhaps a little overlooked in the writer's admirable paper, is to be sure, in comparing cases, that the element of *age* is taken into account. The question raised by Sir B. W. Richardson is not a new one. It was raised in one sense by Dr. Todd, and in a very opposite sense by Professor Gairdner, who has been amongst the most powerful, as he was amongst the earliest, advocates of an extremely careful and limited use of alcohol in typhoid fever. Sir B. W. Richardson's paper should be read. The remarks of some who followed in the discussion at the quarterly meeting of the British Medical Temperance Association were not all in such judicial form and taste. One gentleman "never remembered to have had a death from

typhoid and thought too much fuss was made about methods of treating it," &c.; but, taken as a whole, the debate was characterised by moderation and fairness and will tend to induce practitioners to consider the evils of a careless use of alcohol.

"THE QUEEN AND THE MANCHESTER SHIP CANAL."

IN an annotation last week under the above heading we quoted the statement of a correspondent of *The Times* that Sir William Jenner, Lord Delamere, Major-General Carey, R.E., and Mr. Leader Williams had recently made a trip in a small screw steamer along the Ship Canal, presumably in view of the forthcoming visit of the Queen. We are able to say authoritatively that the statement is incorrect so far as respects Sir William Jenner, who was not present on the occasion, and, indeed, was not even asked to undertake such a trip.

THE REMUNERATION OF MEDICAL OFFICERS OF HEALTH.

MR. W. W. LAKE, the medical officer of health for the Guildford district of West Surrey, has addressed a temperate, well-reasoned appeal, to the Guildford Rural Sanitary Authority for an increase of salary. He demonstrates beyond doubt in his communication that his present rate of payment—£200 per annum—is entirely inadequate, and that he has been compelled to disburse over half his annual salary to meet the unavoidable expenses of carrying out his duties in his extensive district. Mr. Lake gives figures to prove these points, and other figures to show that his duties have been discharged in a manner which should most practically recommend him to the community over whose sanitary interest he has been selected to watch; and we sincerely hope that the Guildford Rural Sanitary Authority will appreciate the force of his letter. We are aware that Mr. Lake is in receipt of the stipend which the sanitary authority offered in their advertisement for candidates for the post of medical officer of health, but this need not preclude the authority from a later recognition of the inadequacy of their offer and of the weakness, economically speaking, of a cheese-paring policy in this particular direction.

"FROG MARCHING."

AN inquest was held at Colchester on May 7th touching the death of John Philpotts, a gunner in the Royal Artillery. From the evidence, as reported in *The Times*, it appears that the deceased was intoxicated, and had to be carried through the town to his quarters by a military picket. The testimony as to how this was done was very conflicting. According to three civilian witnesses, Philpotts was carried face downwards with his head lower than his feet, or, in other words, he was what is called "frog marched"; further, it was stated that he was gasping whilst being so carried. The members of the picket and a police constable denied these statements. Surgeon-Lieutenant Barnett said that death was due to alcoholic coma, and that there was no evidence that it was accelerated by the "frog march." The jury found a verdict in accordance with the medical evidence, but added that in their opinion death was accelerated by the way in which he had been carried. Although it is difficult to accept this rider unconditionally, inasmuch as there were no signs of apoplexy and the medical officer could find nothing at the post-mortem examination to support it, nevertheless the finding of the jury, that the deceased had been "frog-marched," did not negative its reasonableness. If there was no rupture of bloodvessels, it would be impossible to say with any degree of certainty whether the method of conveyance had or had not conduced to the death. We must judge, therefore, from the facts—firstly, that the circulation of the brain must have been seriously embarrassed by reason of the toxic effects of alcohol; and, secondly, that, if the head was allowed to assume a dependent position, the blood would meet with still further difficulty in traversing the cerebral vessels. It was stated that the commanding officer of the district had issued such orders as would put a stop to the system of "frog marching." We trust that such is the case, for there can be no doubt that to carry a drunken man for a considerable distance in the manner alluded to must be fraught with danger to life. There can be no possible excuse for a procedure which, whilst being dangerous, has not the claims of necessity to support it.

MR. GLADSTONE'S HEALTH.

WE understand that the state of Mr. Gladstone's general health continues to be fairly reassuring. When Mr. Nettleship saw him recently at Dollis Hill he found the condition of his eyes to be, under the circumstances, satisfactory. No actual date has, so far, been determined on for the operation. The statement that the discovery of cataract in Mr. Gladstone's eyes was made by Mr. Granger, when he was attending the then Premier for the slight injury to one eye inflicted by a missile, is, we believe, perfectly correct.

ANSELL v. TAIT.

WHEN a worthy member of the profession is brought into any unmerited trouble in the course of his practice nothing is so appropriate and nothing can be so agreeable to him as the sympathy and support of his medical brethren. We congratulate Dr. E. S. Tait on his having a full measure of this advantage. The meeting at Highbury of the profession of the neighbourhood, with many conspicuous additions from other parts of London, shows how right we were in our estimate of this action last week as preposterous and almost amounting to persecution. We sincerely trust that the movement to give a substantial and practical character to the sympathy felt for Dr. Tait will be crowned with success. We understand that Dr. Tait's patients feel as much aggrieved by this action as his professional brethren and are equally eager to express their sympathy and regard.

FISTULÆ AFTER ABDOMINAL SECTION.

THERE is an interesting paper on this subject published in the Transactions of the American Gynæcological Society for last year by Dr. Paul F. Mundé. He considers that a common explanation of such fistulæ is to be found in the character of the contents of the parts removed—for example, in cases of pyosalpinx or suppurating ovary if they burst during removal, so that pus escapes into the pelvic cavity. Dr. Mundé is of opinion that, no matter how carefully and thoroughly washing out is done, some of the pus remains and forms a focus, ultimately leading to the formation of an abscess that generally opens at the lower angle of the abdominal wound. The formation of fistulæ is also favoured by the use of the drainage-tube and is likewise frequently due to the irritation caused by the presence of an unabsorbed silk ligature at the bottom of the sinus. Another cause of fistulæ is the incomplete removal of the diseased parts, as in cases of suppurating cyst, where some portion of the cyst wall has been left. In order to prevent the occurrence of these fistulæ it might be thought that we need only use all possible antiseptic precautions, remove the whole of the diseased and infected tissue, avoid the use of ligatures that are not likely to be absorbed, and close the abdominal wound completely. But, although careful attention to all these points will tend to diminish the frequency with which fistulæ occur in the practice of any particular

operator, Dr. Mundé is of opinion that occasionally a fistula is unavoidable. As regards the treatment to promote closing of these fistulæ, supposing there is no reason to think that a foreign body, such as a silk ligature, is at the bottom of the sinus, the writer advises scraping with a sharp curette, followed by daily irrigation of the canal with weak sublimate solution and packing with iodoform gauze; he also mentions the use of balsam of Peru, or dilute tincture of calendula (1—4), as likely to promote healing. In obstinate cases that do not improve under such treatment he advises drainage by the vagina, a counter-opening being made on the point of a sound or director passed to the bottom of the sinus, and a drainage-tube being passed through into the vagina. The object aimed at is then to get the sinus to heal from the top, the tube being gradually drawn down into the vagina at intervals of a few days. There is a possibility of rupturing the bladder when carrying out the manipulation described, and this accident has happened three times to Dr. Mundé whilst drawing the drainage-tube from the fistula into the vagina. Finally, he considers that in some cases no treatment is of any avail, and it is best to advise the patient to let well alone and "keep her sinus so long as she can live comfortably with it." In the discussion on the paper Dr. Clement Cleveland and others called attention to the value of peroxide of hydrogen in treating these sinuses. It may be used in various strengths, one-third, one-half, and full strength, but chiefly the latter.

DANGERS OF THE RAILWAY PLATFORM.

UNDER such a title we naturally expect a mention of accidents involving gross bodily injury. Such, no doubt, occur, but measures more or less sufficient to prevent their occurrence are inculcated by railway companies and suggested by the instinct of self-preservation to passengers. It is not of these we would write. The more insidious but not less dangerous exposure of those who have to wait for trains on a wind-swept platform in treacherous weather ought to be guarded against by any well-organised company, and remembered by passengers. It will scarcely be credited that there is, in some instances, absolutely no provision made to obviate the evils of such exposure on so constantly used a line as the Metropolitan Railway. At Bishop's-road Station, for example, there is a waiting-room for gentlemen on the down platform and one for ladies on the up platform. The trains do not run with the frequency of those between Edgware-road and the City, and if a passenger has the misfortune to loiter in that spacious station on a chilly day there is no possibility of shelter, except in ludicrous or objectionable corners, while waiting for an up train. The trains being comparatively infrequent and the ground covered by this station so considerable, it is matter of surprise that no shelter for men is to be found in this place. In our opinion a company which thus exposes passengers of all ages to considerable risk should be held as directly liable for untoward consequences as in cases in which bodily injury is sustained from culpable negligence on the part of the officials. We trust our remarks may lead to the abolition of such dangers, which we consider very real, and quite remediable.

THEODOR BILLROTH'S SUCCESSOR.

To bend the bow of Ulysses is proverbially a difficult undertaking, and to succeed a Billroth in the chair he adorned is an object of ambition to which few indeed legitimately aspire. Still the duties of that chair have to be discharged, and the Vienna school has just taken the primary steps to fill it. At a meeting of its medical faculty three candidates were nominated for the post: *Primo loco*, Vincenz Czerny, Professor of Surgery in the University of Heidelberg; *secundo loco*, Karl Gussenbauer, Professor of Surgical Pathology and Therapeutics in the University of Prague; and *tertio loco*, Johann Mikulicz, Professor of Surgery in the University of Breslau. There is, we believe, little doubt that the first-named surgeon will be appointed. He is, to begin with, a pupil—if not, indeed, the most distinguished pupil—of the deceased master, capable not only of maintaining but of extending the traditions of the chair. Among all the tributes to the great surgeon's memory, none equalled Professor Czerny's *oraison funèbre* for its power and pathos in bringing home to the medical world the void created by Billroth's death. If the first condition of success in any enterprise is an adequate appreciation of its exigencies, Professor Czerny has shown his perception of what is expected from the heir to Billroth's position and life-work with a fulness and a force to which no contemporary of his can pretend. A German-Bohemian by parentage, he was born on Nov. 19th, 1842, at Trautenau. He studied at the Vienna school, and after a brilliant undergraduate career, he became Billroth's clinical coadjutor till 1871, when he was appointed Professor of Surgery in Freiburg. Six years' admirable work in that school led to his promotion to the surgical chair in the University of Heidelberg—a post he has since occupied with annually increasing acceptance. His reputation has long been European, not only by reason of such writings as his "Beiträge zur operativen Chirurgie" (Stuttgart, 1875), but also as a brilliant operator. The other candidates are also men of high qualifications and distinguished record, Mikulicz being himself a pupil of Billroth; but between them and Czerny there is little hesitation in the German-speaking medical world as to which has the stronger claims to succeed "the surgeon of great initiatives," as the deceased master was happily designated.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE next annual meeting of this association will be held in Dublin on June 12th and the following days. An extensive programme has been issued, and there is a promise of much interesting and important work, with discussions on insanity from different standpoints and on a variety of collateral psychological subjects which cannot fail to attract a large gathering. Professor Benedikt deals with Moral Insanity, Dr. Jules Morel with the need of Special Accommodation for the Degenerate, and Dr. René Semelaigne with the Forms of Delusion in Persecutory Insanity. A subject of immediate interest is that of the Alleged Increase of Insanity in Ireland, and a discussion on this topic is to be introduced by Dr. Drapes. Dr. Lloyd Andriezen is to deal with Insanity and Race Decay. Mr. Conolly Norman, superintendent of Richmond Asylum, is the president for the year 1894–95, and he is well qualified for the post from past experience of lunacy work. The annual dinner of the association will probably be fixed for Wednesday, June 13th. We observe that the examination for the certificate in Psychological Medicine will be held in July. Candidates have to give at least fourteen days' notice to the Registrar of the association, Dr. Spence, Burntwood Asylum, near Lichfield. The examination for the Gaskell prize of the association will be held in London in July.

ACUTE YELLOW ATROPHY OF THE LIVER IN A CHILD.

MERKEL[1] reports an unusual case of acute yellow atrophy of the liver occurring in a child aged only six years. This disease is very rare in children, and such a case, therefore, is of considerable interest. In the child referred to the first symptoms noticed were malaise and loss of appetite; jaundice appeared a little later. The temperature was then normal and the pulse slightly increased in frequency. The tongue

[1] Münchener Medicinische Wochenschrift, January, 1894.

was furred; the urine contained bile but no albumen. The lower edge of the liver could be felt two fingers' breadth below the costal margin. Eight days later the size of the liver had considerably diminished, and on palpation it could not be felt; the spleen, on the other hand, was enlarged. At the same time the jaundice became intensified, the child was seized with convulsive fits and became extremely prostrated. The temperature was 98·2° F., and the pulse 116 per minute. Death occurred seventeen days after the commencement of the disease. At the necropsy the lungs were œdematous; subserous hæmorrhages were numerous; but very little bile was in the gall-bladder; the liver was very small, yellowish-brown in colour, with a number of islets red in colour; there was grey degeneration of the hepatic cells, with round-cell infiltration in places. Swelling and grey degeneration of the renal epithelium, together with small hæmorrhages in the kidney were noticed to be present. There was commencing degeneration of the cardiac muscle fibres. The cause of the disease, as is usual in such cases, could not be determined.

SUFFOCATED IN A SEWER.

A CASE was reported in the daily papers last week in which it was stated that a number of sewermen whilst engaged in clearing the drains in the neighbourhood of Stamford-street had been overcome by noxious gases. This is not the first time, unfortunately, that a similar occurrence has been recorded, and we are led to enter a strong protest against the indiscriminate manner in which the authorities allow their employés to examine common sewers. It is a well-known fact that sewer gases, whatever their exact nature may be, are most frequently quite destitute of oxygen, and that therefore when an individual is lowered into a sewer he may be quickly overcome by simple asphyxiation. But a simple rule in such a case is never to descend into a sewer in which a lighted candle fails to burn or to burn satisfactorily, for it is well known that an atmosphere which will not support combustion will not support life. As has been shown, however, there may be present combustible gases (hydrocarbons &c.) sufficient to give rise to explosion on the application of a light; but this emergency could be provided against by enclosing the lighted candle in a lamp of wire gauze, in the same way that the Davy lamp is used in coal mines. We cannot help thinking that, were these simple precautions adopted, fewer disasters—if any at all—of the kind indicated would in the future be heard of.

THE SEPARATE SYSTEM.

A LEAFLET published recently by the Howard Association is of interest on account of its relation to the controversy still occasionally revived respecting the comparative merits of the separate system of imprisonment in gaol and that which allows the association of prisoners. After exposing the misleading, because misinformed, character of the utterances made on this subject by the late Charles Dickens, the writer argues with much clearness and force in favour of the former method. Its proved efficiency in restraining and improving the criminal class in this country, in France, and in parts of America is quoted in its favour, and this experimental proof, we are reminded, is in harmony with the views of such eminent authorities as Blackstone, Howard, and Mrs. Fry. The somewhat qualified results obtained at Elmira notwithstanding, we cannot but recognise the rational and practical qualities possessed by the separate method as here explained. While maintaining the value of instruction recognised also by the system pursued in the well-known American reformatory, it is far more keenly, and, in our opinion, more wisely alive to the corrupting influence of evil associations. It is also very careful to avoid the dangerous extreme of solitude, or, even of separation itself, if persisted in for a long period and after its purpose has been achieved. It recognises fully and frankly the power exerted by religion in moral development, a power which is yet in its very nature irreconcilable with an atmosphere of moral corruption. The paper we have mentioned admits fully the need existing in British prisons for freer communication by visitation between the imprisoned criminal and the healthier moral forces which rule in the outer world of social law and order. Its whole argument is a most candid one, founded on the sound clinical principle which associates all treatment with removal of the causes of disease.

THE DIFFUSION OF SMALL-POX.

THERE was a somewhat serious rise in the number of small-pox attacks in London last week, the recorded cases having been 36, with 6 deaths, all of which, however, belonged to West Ham. The number of patients remaining under treatment at the close of the week was 191, of whom 166 were in Metropolitan Asylums Board institutions and 25 in the Highgate Small-pox Hospital; whilst 64 cases were admitted to hospital during the week. In West Ham itself the fresh cases were 21, and in Leyton 7. One death each occurred in Wolverhampton, Nottingham, and Birmingham, 51 attacks being recorded in the latter place. Salford was free from invasion, but Manchester had 4 cases, as also had Bradford. For the rest, there is not much to record.

DULCIN.

DULCIN, or sucrol, a new sweetening agent, which is said to be from 200 to 250 times as sweet as sugar, was first produced by J. Berlinerblau. Structurally it must be described as para-phenacetol carbamid. It is an aromatic uric acid derivative related to phenacetin. It is a white powder which melts at 173° C. to 174° C. and is soluble in about 800 parts of water at 15° C., fifty parts of boiling water, and twenty-five parts of a cold 90 per cent. solution of alcohol. These particulars are taken from a contribution by Professor Kobert of Dorpat to the *Centralblatt für Innere Medicin*,[1] Particulars as to its physiological effects are also given. Dogs seem comparatively sensitive to dulcin, dying with such evidences of blood destruction as icterus, while rabbits appear to be quite impervious to its influence. Professor Kobert relates his own experience with the drug in the case of cats. These animals reveal no evidence of blood destruction, but seem to die with symptoms of cerebral paralysis; this is also the manner of death of frogs subjected to subcutaneous injections of dulcin. These are, of course, the extreme effects of poisonous doses. In the relatively small doses necessary for sweetening the food of diabetic patients and the obese Professor Kobert considers the agent harmless and mentions a case in which eight grammes were taken daily for three weeks with impunity. It is quite evident, however, from the physiological experiences related that some care is necessary in the use of this article.

HERBALISTS IN CONFERENCE.

THE *Yorkshire Post* reports the annual conference at Keighley of the Society of United Medical Herbalists of Great Britain. The titles had the charmingness of variety and of vagueness. Mr. Charles Walden, F.R.M.S., of Dukinfield, took the chair at one meeting where the proceedings were private and of a routine order. At the afternoon meeting Dr. (*sic*) Younger (M.D.Bc.), President of the General Council of Safe Medicine of Great Britain, was elected a member, and Mr. John Simmons, F.S.Sc., was elected President. Mr. Alfred Russell Fox, M.P.S., Sheffield,

[1] No. 16, 1894.

President of the National Association of Medical Herbalists of Great Britain, gave an address on the duties of medical herbalists in regard to protecting themselves from prosecution. In the evening a public meeting was held. The numbers present are not stated. But a vote of sympathy with Mr. Henry Newton of Keighley was passed in respect of his recent prosecution by the Medical Defence Union; and another vote was passed demanding the repeal of the Apothecaries Act, 1815. We may expect next to hear of a demand for the disestablishment of the Royal College of Physicians and its replacement by the Society of United Medical Herbalists. With two medical defence associations in existence it may be hoped that we shall have further intelligence of the legality of Mr. Younger's pleasing title (M.D.Bc.) in addition to that supplied by the recent case of "Mr. Joseph Steele, M.B.Bc.," of Hetton-le-Hole, who, our readers will remember, was fined £10.

THE BORDEAUX AMBULANCE SOCIETY.

THE voluntary ambulance work done at Bordeaux is the result of private initiative encouraged and patronised by the local authorities. The funds, which barely amount to £800 a year, are for the most part obtained from voluntary subscribers, though the municipality gives a subvention of £120 a year. With these slender resources and the gratuitous aid of a number of local medical practitioners a first ambulance post was established at Batalan, rue Lucien-Faure. Here, in the course of thirteen months, 1286 persons have been treated for wounds, accidents, &c. Out of eight persons who were apparently drowned six were restored by artificial respiration and the employment of oxygen. In the north of Bordeaux a dispensary for poor children has been established at which 583 cases were treated in the same lapse of time. At another ambulance post more recently established, on the Quai des Chartrons, help was given to 130 persons who were wounded in the work of the port. Another ambulance has been opened near the principal station and the slaughter-house, and there are ambulance boxes and stretchers ready for use in different parts of the town. Stretchers have been deposited at the principal druggists' shops, and a large signboard indicates where these may be found in case of emergency. Then there are field ambulances that go wherever a crowd or *fête* indicates that they may be required. As with our St. John Ambulance Association, ambulance classes are held and lessons given to all who desire to learn, but more especially to policemen. Dr. Mauriac, the general secretary of the society, has given twenty-four lectures to 160 policemen in the course of the year. It will be seen, therefore, that the town of Bordeaux is anxious to keep itself well in the van of progress, and that in this respect, at least, it has come into line with what has been done by the most enterprising communities in different parts of the world.

TUMOUR OF THE OPTIC THALAMUS.

AN abstract of an interesting case recorded by Dr. Masing in the *St. Petersburger Medicinische Wochenschrift* appears in the *Centralblatt für Nervenheilkunde*. The patient was a boy aged fifteen, whose first symptoms were tremor and weakness in the extremities of the right side. A month after their onset there were headache, vomiting, speech-disturbance, and diplopia, and these symptoms were followed by a right-sided convulsion and loss of consciousness. On admission to hospital at this time there was slight paresis on the right side of the face and tongue and in the right arm and leg. There was no giddiness or ataxy, and muscular sense was unimpaired; but the ordinary sensibility was much affected on the right side, and there was affection of the parts supplied by both oculo-motor nerves. There was no hemianopsia. The patient died after a series of convulsions which were ushered in by severe headache and succeeded by coma. At the necropsy a sarcomatous growth about the size of a small apple was found involving the whole of the left optic thalamus and exerting considerable pressure on the left crus cerebri. There were two small hæmorrhages symmetrically placed in the lateral walls of the aqueduct of Sylvius in the part corresponding to the anterior pair of the corpora quadrigemina. The important points in the case were the absence of ophthalmoscopic changes and also the absence of hemianopsia, for the pulvinar was involved in the tumour; but apparently only one examination of the fields of vision was made, so that it is possible, with such a rapidly growing tumour as this evidently was, that the symptom was present before death, although it was not discovered.

MANUAL INSTRUCTION IN SCHOOLS.

WE are indebted to Mr. C. B. Shutleworth for an excellent paper on the place of manual training in school education. This particular modification of technical instruction, it will be remembered, is not quite an innovation. Under the now familiar name of "Sloyd" it has existed for more than twenty years as a part of the school system of Finland and Sweden, and in 1888 it was formally inaugurated in this country. Whether exhibited as a form of carpentry—its most usual manifestation—of turnery, fretwork, sewing, cooking, or other known art, Sloyd is essentially instructive as well as practical. Its design is rather to train the worker than to make his handiwork. That it does fulfil this purpose there can be no doubt. Nor is the hand alone educated. What nicety it attains is the reflected evidence of careful calculation and judgment—nay, of higher moral qualities also—of truth, patience, and resolution. Thus the lore of hand culture is in its way related to the lessons of that school of experience in which, from boyhood to old age, we are ever pupils. Sloyd has also for each learner, if he will win it, a faculty of manual dexterity to bestow. Whether his goal be mechanical work, music, decorative or pictorial art, medical practice even, the youth trained in school to use his hands with neatness and precision in any appropriate manual exercise will not regret the skill which he must thus acquire, and the earlier his training begins the better. We may therefore congratulate ourselves that a method so well adapted for purposes of education is yearly becoming more securely established as a part of our school system. We would note, in conclusion, one observation by the writer of the paper above referred to—namely, that the best exponents of the new method are not, as a rule, mere artisan workers, but school teachers who have themselves been trained in it, a matter of no great difficulty. The former are apt to be too purely utilitarian, while with the latter the principle of education is ever a guiding and controlling force, and without this principle Sloyd is mere piecework and the learner an apprentice mechanic.

SUCCESSFUL OPERATION FOR CEREBRAL ABSCESS.

DR. MAX SCHEIER has recorded a case of cerebral abscess of peculiar character in the *Berliner Klinische Wochenschrift*. The case is briefly abstracted in a recent number of the *Centralblatt für Nervenheilkunde*. The patient was a youth aged nineteen, who since the age of six had suffered from otitis media and deafness on the right side. The discharge ceased for about a year, but had recommenced about three weeks before his admission to hospital, and became in a short time very abundant and offensive. There were also present headache, fever, and constipation. The patient on admission was dazed; there was considerable sleepiness, with some stiffness of the neck and retraction of the head. There was tenderness in the mastoid region, the pulse

was irregular, and the temperature raised. The patient was trephined and it was soon evident that there was extensive purulent pachymeningitis. The dura was of a greyish green colour and covered with a thick fibrinous deposit. Bone was removed as far as the diseased condition of the dura extended, but as it pulsated all over it was not opened. A few hours after the operation the temperature fell, and on the next day the mind was clear and the stiffness of the neck had gone. But in a week's time, during which the wound progressed favourably, the patient became emotional and talkative, and a condition of boulimia was manifested. Later there was a sudden discharge of offensive pus, but no change of temperature. A second operation was carried out and the dura mater opened at a point at which there was bulging and an absence of pulsation. An abscess as big as a hen's egg was evacuated. It was situated in the inferior parietal convolution. The boulimia ceased at once, and the psychical condition cleared up and became normal. Healing of the wound took place rapidly, and in a few weeks the patient was discharged completely cured. The result of the operative treatment in what seemed at the first operation to be an unpromising case must be regarded as highly satisfactory.

THE death is announced in *The Times* of Thursday last of Dr. H. A. Bruce, Principal Inspector-General of Her Majesty's Forces, and late of the Bengal Medical Service. Dr. Bruce was eighty-six years of age, and had retired from the service nearly thirty years, after holding many responsible posts and seeing much active service.

THE Indian press announces that the Earl of Elgin, the new Viceroy of India, has consented to become patron, and Sir Charles Elliott vice-patron, of the first Indian Medical Congress, which will meet in Calcutta in December next. Surgeon-Colonel Harvey, Inspector of Civil Hospitals, Bengal, is to be the President of the Congress.

AT a meeting of the committee of the London Hospital on Monday last, Mr. Bertrand Dawson, M.D. Lond., B.Sc. Lond., M.R.C.P. Lond., Demonstrator of Physiology, London Hospital Medical College, and Assistant Physician, Royal Hospital for Diseases of the Chest, City-road, was unanimously elected to the post of Medical Registrar.

WE understand that Mr. Henry R. Oswald, M.D., C.M. Edin., Barrister-at-law, is also a candidate for the vacant post of coroner to the North-East District of London.

THE UNIVERSITY OF LONDON: MEETING OF CONVOCATION.

THE ordinary general meeting of Convocation was held on Tuesday last, the 8th inst., Mr. E. H. BUSH, M.A., LL.B., Chairman, presiding. The proceedings were somewhat extraordinary, for almost at the outset the motion of which Mr. Thistleton Dyer had given notice—namely, one expressing general approval of the report of the Gresham University Commission—was ruled out of order, and the house adjourned until a later hour to receive the report of the scrutineers on the ballot for the election of members of the Annual Committee. This election was the only piece of business transacted—an experience unique in the history of Convocation. Great disappointment was felt, for there had been a large attendance of members interested in a subject so vital to the future of the University, and this feeling found expression both in the House itself and at a large gathering of graduates held in the building during the interval of adjournment. Over this meeting Sir H. E. Roscoe presided, and speeches were delivered by Dr. Sylvanus Thompson, Mr. Anstie, Mr. Thistleton Dyer, Dr. Allchin, and Professor Cave. Mr. Dyer's resolution was carried unanimously, and other resolutions relating to the position of affairs were also passed.

On taking the chair the CHAIRMAN announced that the following members had been chosen to serve on the Conjoint Committee of the Senate and Convocation. By the Senate there were nominated: the Chancellor (Lord Herschell), the Vice-Chancellor (Sir Jas. Paget), Mr. Anstie, Dr. Collins, Mr. Fitch, Professor Carey Foster, Sir J. Lubbock, Sir G. Rollitt, Sir H. Roscoe, Professor Rücker and Sir W. Savory. By the Annual Committee on behalf of Convocation: the Chancellor, the Chairman of Convocation, Dr. Baines, Professor Cave, Mr. Lemon, Dr. Napier, Mr. Nesbitt, Dr. Sansom, Mr. Spratling, Mr. Stephenson, and Dr. Sylvanus Thompson.

Mr. H. E. Allen, LL.B., B.A., was unanimously re-elected Clerk of Convocation.

The report of the Annual Committee was presented by Mr. LEMON and received. Dr. H. L. SNOW moved the following resolution:—"That in view of the inordinate length to which the debates of Convocation now extend, the Annual Committee be instructed to draw up an additional standing order or orders limiting the time allotted to each speaker, and otherwise tending to abridge the ordinary procedure, so far as may be found compatible with reasonable freedom of discussion." The resolution being seconded was put to the meeting and negatived. The CHAIRMAN then called on Mr. THISTLETON DYER, B.Sc., to move the resolution of which he had given notice. It was to the following effect:—"That Convocation, while reserving its right to represent its views before the proposed Statutory Commission, hereby expresses its general approval of the report of the Royal Commission." Mr. BOURNE BENSON thereupon raised the point of order as to whether this resolution could be brought on at this time in view of the fact that Convocation had delegated the consideration of the question to the above-named committee. Other graduates also urged the same point, and the Chairman ruled that the motion was not in order.

For a like reason the two remaining resolutions on the agenda paper were withdrawn—the one (Mr. Whitehead's) recognising that the University of London should be a teaching university for London, and suggesting that, in justice to private students, any legislation on the subject should include the establishment of a new university to be called the University of England, "which should continue the impartial examining work hitherto performed by the existing University of London"; the other, standing in Mr. Lynn's name, having reference to the formation of a professional staff in astronomy and the foundation of an observatory for that purpose.

The adjournment of the House was moved by Dr. SYLVANUS THOMPSON, who forcibly expressed the feelings of the majority at having been deprived of the opportunity of obtaining an expression of opinion upon the question of the Commission's report. The motion was seconded by Dr. COLLINS, it being amended to allow of the ballot for the Annual Committee to be completed.

At 7 P.M. the House resumed, but more than an hour elapsed before the result of the ballot was declared. It was then found that the constitution of the Annual Committee had been entirely changed, only five out of the sixteen sitting members in the Faculties of Medicine and Science being re-elected, and five out of the sixteen in the Faculties of Arts and Laws. It is further noticeable that out of the eight members of the late Annual Committee which it had nominated to serve on the Conjoint Committee, only two—viz., Dr. Sansom and Dr. Sylvanus Thompson—retained their seats. The following is a list of the candidates who were elected, those who previously sat on the Committee being denoted by an asterisk.

Faculties of Medicine and Science.—Thomas H. Beare, B.Sc.; *A. W. Bennett, M.A., B.Sc.; *J. S. N. Boyd, M.B., B.S.; J. Rose Bradford, M.D., D.Sc.; V. A. H. Horsley, M.B., B.S.; *H. G. Howse, M.S., M.B.; Hubert M. Murray, M.D.; Francis W. Oliver, D.Sc.; W. S. Ridewood, B.A., B.Sc.; A. E. Sansom, M.D.; Thomas W. Shore, M.D., B.Sc.; Walter G. Spencer, M.S., M.B.; *Frederick Taylor, M.D.; *S. P. Thompson, D.Sc., B.A.; H. J. Waring, M.S., B.Sc.; and William P. Wynne, D.Sc.

Faculties of Arts and of Laws.—W. C. Braithwaite, LL.B., B.A.; Hugh C. H. Candy, B.A., B.Sc.; Alfred Cave, B.A.; *T. Ely, M.A.; T. Gregory Foster, B.A.; Henry F. Heath, B.A.; *A. Bassett Hopkins, M.A.; Alfred Hopkinson, B.A.; Alice E. Lee, B.A., B.Sc.; *T. L. Mears, LL.D., M.A.; H. Forster Morley, D.Sc., M.A.; *A. L. Morris, LL.B., B.A.; *G. Armitage Smith, M.A.; Henry Spicer, B.A.; and James Sully, M.A.

THE REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1892.

WE are always glad to receive these reports; they contain a large amount of well-arranged information. There is hardly any subject capable of being statistically expressed which is not cast into tabular form, and the text or letterpress which makes up the large body of the report, calls attention to and elucidates all the more important points embodied in the various tables. The materials in the aggregate with which these reports deal may be said to be colossal. The population of India, according to the census of 1891, amounts to about 280 millions, and bears a ratio to the population of the world, as at present computed, of about one-fifth, and is the largest appertaining to any single country with the exception of China. We would here call our readers' attention to the general report of Mr. J. A. Baines, the Census Commissioner for India, published in 1893, because it is one of the ablest and most interesting State documents that it has ever been our good fortune to read. A census report, or a Blue-book dealing with statistical data, cannot be regarded as a form of light literature with which to beguile our leisure time, but Mr. Baines's work is unique in its way, so full is it of all sorts and varieties of learning and information skilfully woven together into a vigorously written narrative which makes excellent reading. A map of the world on a plane projection shows, he says, that of the great promontories which taper from the north down to the southern seas India is by far the smallest. It contains, in fact, but 3 per cent. of the estimated land surface of the globe. With all its diversity of conditions India has, in spite of its political unity and comparatively small area, nevertheless good claim to be considered as a collection of countries, or a continent. This fact is too apt to be forgotten. To return, however, to the report of the Sanitary Commissioner. This large volume deals, like its predecessors, first of all with the European army of India—a mere handful compared with the millions of native population among which it is distributed, for in 1892 its average strength was 68,137; next with the native army, numbering less than 128,000; the jail population of 103,000; and, lastly, the vast general population of the country. To begin with a brief analysis of some of the facts connected with the European army: the death-rate per 1000 in 1892 was 17·07, the invaliding rate 24, representing together a total loss of 41 per 1000. The chief causes of admission were ague and venereal diseases, the former causing 28 per cent. of the total sickness for the year, the latter 27 per cent. The chief causes of mortality were enteric fever, cholera, remittent fever, hepatic abscess, heat-stroke, dysentery, and tuberculous and other diseases of the lung. On comparing together the decennial tables from 1870 to 1890 there is an increase in the last decennium in the constantly-sick rate, probably connected with the increased prevalence of venereal diseases and ague, but a decrease in the admission and death ratios from all causes. Some allowance must no doubt be made for the greater frequency with which the diagnosis of enteric fever has been made of late years in connexion with the higher admission and death-rates from that fever. All other death ratios, especially that from cholera, were reduced. The Sanitary Commissioner remarks that while the progress of sanitation in India has resulted in a general diminution of sickness and mortality, especially from cholera, much remains to be done in the reduction of malaria, and in the protection of our short service army from enteric fever and venereal disease. In all three Presidencies admissions from venereal diseases and ague head the list in 1892. The following table shows the percentage respectively of enteric fever, hepatitis, dysentery, and pneumonia in the total deaths of each Presidency for that year:—

—	Madras.	Bombay.	Bengal.
Enteric Fever	32·3	25·8	39·0
Hepatitis	6·9	9·2	5·5
Dysentery	3·0	10·4	0·6
Pneumonia	4·1	2·5	2·4

According to a statement issued by the Quartermaster-General in India the percentage of men of the Bengal army located in the hills on June 1st, 1892, was 32·79, of women 40·0, and of children 47·23 per cent. of strength.

Referring to some of the principal diseases, it may be mentioned that influenza began to rise again in India in December, 1892, attained a maximum in March, and ceased in the following August. The prevalence of this disease among the European troops rose from 5·5 per 1000 of strength in 1891 to 12·7 per 1000 in 1892. The returns only deal with hospital cases, but many mild cases were not admitted to hospital. The lowering effect of influenza, however mild, on the general standard of health was commonly noted.

As regards the prevalence of cholera among the European troops in 1892 it appears that the amount of this disease was less than in the preceding year. There was more cholera in the second half of the year than in the first. The months most affected were April, June, August, September, and October; the greatest number of cases among the European troops occurred in August and September. The ratio of admissions to strength was 2·5 per 1000, of deaths to strength 1·78, and the percentage of deaths to cases 71·01. Cholera has certainly lost none of its virulence of late years; on the contrary it would seem, on reference to the figures recorded over a series of years, that the percentage mortality of those attacked has been gradually rising from the earlier dates to the present time.

There was a severe outbreak of malarial fever at Peshawur, of which the medical officer in charge, Brigade-Surgeon-Lieutenant-Colonel Brown, gives an account which will no doubt serve to recall some past experiences to the recollection of medical officers who have served in that command. The malarial fever was of a specially severe type, and prevailed mostly during the months of September, October, November, and December. In this period there were 54 deaths from remittent fever, and in the early cases it was extremely difficult to diagnose them from cholera, the patient being attacked with purging, vomiting, cramps, and suppression of urine, followed by collapse. At the post-mortem examinations the liver and spleen were found to be greatly congested, the latter organ weighing in some cases from thirty to forty ounces. The cause of this unusual sickness was generally attributed to the heavy rainfall in the months of July and August. Seventeen inches of rain were recorded during these two months, or more than the whole yearly average, and of this the greater part fell in the early part of August. There is no record, it is added, of a similar rainfall in the Peshawur Valley for these two months. We should be glad to learn the results of any observations by medical officers serving in India as to the constant presence in malarial blood of the hæmatozoon described by Laveran in 1880—the plasmodium malariæ—a discovery which has since been corroborated by many competent observers. It is scarcely necessary to point out that a microscopical examination of the blood in suspected cases of malarial disease should be undertaken where practicable, as the discovery of Laveran's parasite seems to be a most important aid in diagnosis.

(To be continued.)

CHOLERA.

IF the reappearance of cholera cannot be altogether regarded as a matter of surprise, it is, nevertheless, one for unmitigated regret. Apart from the amount of sickness and mortality which may be caused by the revitalisation of the epidemic, especially among the poorer classes of the population, it almost necessarily cripples industrial enterprise in the affected countries. The misery and poverty of the poor are aggravated and intensified by the state of fear and moral depression induced by the presence of epidemic disease, which is also usually accompanied and followed by commercial embarrassments and depressions of trade.

It is, consequently, with great regret we learn that the appearance of cholera has been officially announced in the governments of Podolia, Bessarabia, Kieff, and Tchernigoff. The Minister of the Interior, according to *The Times* correspondent at St. Petersburg, has begun again to issue cholera bulletins in consequence of the reappearance of "cholera and diseases similar to cholera" in the Polish frontier

districts. Up to May 1st there have been two fatal seizures in Warsaw, 53 cases and 34 deaths in the province of Kovno, 75 cases and 40 deaths in the province of Plotzk, and 40 cases with 15 deaths in the provinces of Podolia and Radomsk, making altogether 170 cases and 91 deaths since March 18th.

Whatever may be the exact nature of the disease at Lisbon, it still continues to prevail to a certain extent. From 20 to 40 fresh cases have been returned daily, but no deaths are reported. The vast majority of those attacked with diarrhœa recover in a few days. From Madrid it is stated that the Minister of the Interior has received intelligence of a death from supposed choleraic disease at a village near Lisbon, and of several fresh cases of alleged cholera at the little town of Fundas, in the district of Castello Bianco, near the Spanish frontier.

The latest information is strongly corroborative of the correctness of the opinion expressed in THE LANCET from the beginning—viz., that the epidemic at Lisbon was not Asiatic cholera, but simply an outbreak of diarrhœa, attributable, in all probability, to a contaminated and unwholesome water-supply. The disease has not exhibited the characteristic symptoms of true cholera, and Koch's comma bacillus is understood not to have been found on bacteriological examination, but the specific agent discovered in the water of Lisbon is a vibrio. Meanwhile, measures have been taken to watch the progress and limit the spread of the disease, which is said to be rapidly declining.

THE CASE OF ANSELL v. TAIT:

MEETING AT HIGHBURY.

A MEETING of the medical neighbours and friends of Dr. Edward S. Tait was held at the residence of Dr. Glover, Highbury-place, N., on Friday evening, May 4th, to express sympathy with Dr. Tait in the anxiety he has passed through as defendant in the above action. There was a large attendance, and letters expressing regret at being absent were received from Sir William Savory, Dr. Burnett, Dr. Goodhart, Mr. Calthrop, Mr. Wm. Stewart, Dr. Beale, Dr. Sansom, Mr. Dingley, Mr. Anthony Bowlby, Dr. Phelps, Mr. Sheehy, Dr. Hewer, Mr. Reynolds, Dr. Remfry, Dr. George R. Beardmore, Mr. May, Mr. Harding (Eastbourne), Dr. Malcolm, Dr. Ducat, and others.

On being voted into the chair Dr. Glover said the case of the plaintiff in its medical aspects would command general sympathy; but when turned to legal uses as it had been their sympathies were reversed. The case, unfortunately, was not an uncommon one. A man with a tuberculous constitution, who had previously had hæmoptysis, sprained his ankle. It resisted treatment and went on to hopeless disease of the joint, necessitating in the end amputation. Similar disease followed in the other joint. No practitioner who respected his reputation would say that an incision into a superficial spot where fluctuation was felt could have set up the disease. It did not cause or insert the bacillus, which was working deeply in the recesses of the joint. Still less could such a theory be maintained of the disease in the other joint. Such, however, was the contention of the plaintiff, and he ventured to say that a more absurd and unjust contention had never been brought forward in a court of law. It was unfortunate that the forms of law lent themselves to such charges, and it was still more unfortunate that such cases should be kept hanging over a practitioner's head for fifteen or eighteen months. Everyone must rejoice when such practices came to a ridiculous conclusion, as in this case. If the profession must be attacked it was fortunate when the particular individual attacked was a man, as in this instance, of the highest character, of the best education, and of the most perfect professional conduct; but such men were not less sensitive than others, but were often more so. They were met to express their sympathy with Dr. Tait. He had never known the local profession so unanimous as they were in this sentiment to Dr. Tait and his family, whom they all respected so much. These feelings, however, were not confined to the district, but extended largely through the profession, as the letters read and the gentlemen present showed. Dr. Tait had taken no ignoble way out of this trouble, but had bravely followed the course dictated by a sense of what was due to himself and the profession, and he was sure that the profession would feel grateful to him.

Dr. Stokes moved the first resolution: "That this meeting of Dr. Tait's professional friends and neighbours desires to express its sincere sympathy with Dr. Edward Sabine Tait in respect of the long time of anxiety he has had to pass through, and likewise to convey its hearty congratulations on the complete breakdown of the plaintiff's case in the action brought against him. The meeting recognises that Dr. Tait, in defending the action, has fought the battle of the profession as well as his own, and offers him its best thanks." Dr. Stokes said it would be almost impertinent in him to pay any tribute to Dr. Tait, for whom and for whose father he expressed the highest respect. He was sure that this meeting would be an effectual means of supporting Dr. Tait—as it was also a testimony to his high personal and professional character. It is too much to expect such actions to cease altogether. They were not so numerous as they were. Dr. Tait's spirited action in this case will tend to make them fewer. This meeting will show the public that we are not professional units but a body corporate, and that when one member suffers all the members suffer with him. Mr. King seconded the resolution and said that in the thirty-six years during which he had lived as a very close neighbour to the plaintiff's father and himself they had never had a word or a feeling of difference. Dr. John Williams spoke in high terms of Dr. Tait's work when house surgeon to him in the York-road Lying-in Hospital. He had hoped to induce him to take up the obstetric specialty, but he was bent on going to join his father. Mr. Lockwood, F.R.C.S., in supporting the motion, said he hardly knew how to say all he felt and thought in this matter. The unfortunate man had absolutely no ground for the action taken. Dr. Woodroffe, Dr. Stevens, Mr. Keele, and others spoke in support of the motion, which was unanimously carried. On the motion of Mr. Jago, seconded by Mr. Savory, it was resolved that the following gentlemen, with power to add to their number, be a committee to take means to solicit the sympathy of the profession generally to collect subscriptions towards defraying the expenses of the defence and to take any further steps that may be necessary: Dr. Glover, Dr. Stokes, Mr. Keele, Dr. Woodroffe, Dr. Reid, Mr. Fraser Stokes, Mr. Lockwood, Mr. Galloway, Dr. Alexander Morison, Dr. Wright, Dr. Hamilton, Dr. John Williams, and Mr. Charles King.

Treasurer: GEO. T. KEELE, 81, St. Paul's-road, Highbury, N.
Hon. Sec.: ALEXANDER REID, M.D., 29, Canonbury Park North, London, N.

The following subscriptions have already been promised:—

	£	s.	d.		£	s.	d.
John Williams, M.D. ..	5	5	0	Thomas Jago, M.R.C.S. Eng.	1	1	0
J. Grey Glover, M.D. ..	5	5	0	Cyril G. Mack, M.B. ..	1	1	0
H. Jas. Stokes, M.D. ..	5	0	0	Charles King, M.R.C.S. Eng.	1	1	0
C. B. Lockwood, F.R.C.S. Eng.	2	2	0	C. S. Patterson, M.B. ..	1	1	0
H. Fraser Stokes, M.R.C.S.	2	2	0	Alex. Reid, M.D.	1	1	0
Frank Godfrey, L.R.C.P. &c.	2	2	0	J. Smith, M.B.	1	1	0
George T. Keele, M.R.C.S.	2	2	0	G. J. B. Stevens, L.R.C.P.	1	1	0
C. F. Bailey, M.D. ..	1	1	0	C. T. Savory, M.D. ..	1	1	0
T. A. Cambridge, M.R.C.S. Eng.	1	1	0	E. A. White, M.D. ..	1	1	0
J. Galloway, M.D ..	1	1	0	G. Wight, M.D.	1	1	0
T. Hamilton, M.D. ..	1	1	0	O. Wickam, M.R.C.S. ..	1	1	0
				F. Spicer, M.R.C.S. ..	0	10	6
				David Keele, L.R.C.P. ..	0	10	6

LEEDS SANITARY AID SOCIETY.

THIS excellent society, which in its aims and principles resembles to a large extent the Mansion House Council on the Dwellings of the Poor in London, has recently held its annual meeting at the town-hall, Leeds. The chair was occupied by the mayor, and among those present were the vicar of Leeds (who is president of the society) and Dr. Spottiswoode Cameron, medical officer of health of the city. The society's work is entirely voluntary, and it appears from the reports of the hon. secretaries, Mr. Walker and Mr. Lupton, that during the past year a house-to-house visitation, carried on by the members in different parts of Leeds, has, with the hearty coöperation of the sanitary authority, been productive of much good. The society has also petitioned the Building Clauses Committee with regard to the abolition of privy-middens, and we are pleased

to hear that there is a prospect of by-laws on the subject. The necessity of getting rid of these privy-middens is a point which Dr. Cameron especially impressed upon the Sanitary Committee in his last annual report, and we hope in his report for 1893 to learn that proper action has been taken in regard to them. The society has also, during the past year, approached the Streets and Sewerage Committee with a view to the removal of the defective street and yard gullies so common in Leeds. This action on the part of the society will, we feel sure, be welcomed by the Sanitary Committee of the Town Council, since they themselves have petitioned the Sewerage Committee on this very point. It appears that the gullies in question are really catch-pits, containing some twenty gallons of liquid filth, and any fresh addition to the contents simply stirs up the sediment, without in any degree flushing the pits. We notice that Dr. Cameron in his last annual report states with reference to these street gullies that, "Any words I might use to express, however inadequately, the offensiveness of these small cesspits would sound like an exaggeration." The work of the Sanitary Aid Society has recently so much increased that it has been decided to appoint—at any rate, for a time—a paid inspector. This appointment will entail an expenditure in excess of the present receipts of the society, and an appeal has been made to the members for an increase in their subscriptions. Let us hope, however, that the support of this project will not cease with an increased subscription from its present members, but that the appeal will also gather fresh support. By no means the least useful part of the society's operations consists of giving lectures connected with public health, and this is a branch of the work we hope the society will be able to extend. Obviously the future sanitary welfare of Leeds must depend to a large extent upon the diffusion of the principles of public health among the people and the return by them to the Town Council of men animated with a desire for sanitary reform. We see also that this principle of popular education is being adopted by the Smoke Abatement Committee of the society, whose efforts mainly consist in arousing public interest in smoke abatement by public meetings and discussions. It seems to have been a fortunate coincidence that on the same day that the annual meeting of the society took place the Sanitary Committee of the Town Council themselves paid a visit to one of the "insanitary areas" of Leeds, which it is apparently proposed to deal with under the Housing of the Working Classes Act, 1890, a visit which the *Leeds Mercury* thinks will mark an epoch in the history of the city. The same journal, in commenting upon the difficulties of dealing with the area in question, adds, "but Leeds is a great and wealthy city, and can afford to grapple boldly with the problem." It certainly seems that Leeds has set her face against these insanitary areas and has determined not to look back; and the words of the mayor, addressed to the Sanitary Aid Society after his inspection of the area in question, may well be quoted here. He stated that if the proposal for dealing with this area could be carried out "it would pay in health, it would pay in the saving of expense in dealing with the disease and in dealing with crime which were the direct outcome of those unfortunate surroundings." We re-echo these words, and heartily congratulate the Leeds Sanitary Aid Society upon its efforts.

IN THE WAKE OF THE CONGRESS.

(FROM A HOLIDAY CONTRIBUTOR)

(*Concluded from p. 1088.*)

FROM the Neapolitan Riviera, whose waters we can well believe to have been the haunt of those sirens against whose enticements Ulysses and his mariners had to take special precautions, we proceeded in somewhat diminished numbers to the "Tuscan Switzerland," the beautiful Val di Nievole. At Florence we were again reinforced, chiefly from the local medical staff, few of whom had been "Congressisti," but all of whom vied with each other in showing what attention they could to the "reliquiæ Danaûm"—to those, that is to say, who had emerged from the bustle, confusion, and somewhat "chastened joys" of the mighty International meeting, and were not disinclined to add the restorative of a Tuscan holiday to that they had already profited by on the seaboard and islands of "fair Parthenope."

Preparations had long been on foot in Florence and in Pisa for our reception—the life and soul of the movement being Professor Grocco, the official head of the Tuscan school—a consultant who has bestowed especial care on the resources of the province in mineral waters, and who, as director of those at Montecatini, has proved himself a worthy successor of the late able and accomplished Professor Federici. Nothing could have been more liberal than his arrangements for our journey, accommodation, and refection. All expense was literally taken off our hands, and the kindliest solicitude towards making us "feel ourselves at home" was *en évidence* from first to last.

The railway run down the Montecatini was broken for a few minutes at the station of Pistoia—the Roman Pistoria where Catiline, as Sallust tells us, made his final stand, like a wolf at bay, and was defeated and killed B.C. 62. On the platform the Syndic, Signor Grossi, welcomed us, in the name of his ancient and renowned city, whose proximity to Montecatini and Monsummano is not the least of its attractions; and, this ceremony over, we steamed into the Val di Nievole, through a succession of stations, all of them gay with flags in honour of our visit. Alighting at the Bagni di Montecatini (Montecatini itself commands a noble position some kilometers away on the crest of the hill) we were met by the Commendatore Bertarelli, Prefect of Lucca, and by the Syndic of Montecatini, and while the ceremony of presentation is going on between guests and hosts I may give a brief account of the local health resort and its virtues.

It is at, or shortly after, the Renaissance that Montecatini comes prominently into notice—few or no traces of its resources in ancient times being now extant. The great Pisan professor of botany, Cæsalpinus, and his not less great contemporary, Falloppius, the Paduan anatomist, make honourable mention of it, and from their generation onwards it has increased in acceptance and popularity until it is called throughout Italy, with much reason, "the Italian Karlsbad." Its situation first arrests us as peculiarly favoured. A chosen haunt of the olive, and particularly of the vine, for

"apertos
Bacchus amat colles,"

it lies in a rolling champaign, rising at intervals into knolls which, in turn, mount into hills, all exuberant with verdant foliage, on which the sun delights to linger. Never in this region was the proverb framed: "dove non va il sole, va il medico" (where the sun does not go the physician does), for its light and warmth and all that the solar presence implies have blessed it with an exceptionally healthy and happy peasantry, who would rarely know what the invalid state means were it not for the relays of gouty and hepatic sufferers sent up to it every summer from the great cities. More than twenty springs, varying in chemical constitution as in volume, gush from its deeper strata to the surface—springs the predominant element in which is chloride of sodium. No two out of these twenty sources are alike, each having its differentiating characteristic, mainly as to temperature and constituents—some, for instance, containing, in addition to the chloride of sodium, chlorate of magnesia, sulphates of potash and soda, and sulphates of lime and magnesia. Moreover, and in varying proportions, the waters yield the salts of iron and manganese, of iodine and bromine, and, at the moment of their bubbling up to the light, they give off in gaseous form nitrogen, oxygen, and carbonic acid gas. So much for the general character of the waters. As to their uses, they have been found conspicuously efficacious in biliary lithiasis, an affection quite protean in its manifestations as it is widespread in its incidence. According to Dr. Pio Fedeli, one of the most experienced consultants resident at Montecatini, its three forms—cystocolelithiasis, angiocolelithiasis, and biliary gravel, all of them having in common the pathognomonic sign, slowing of the biliary secretion—rarely undergo the treatment in vain; indeed, such partial failures as are on record are due to the indiscriminate use of the waters, not to the lack of virtue in the waters themselves. Next, as to the administration of these. Twenty or more in number, they are under private control, with the exception of eight, which are the property of the Italian Government. Five of these latter—the Tettuccio, the Rinfresco, the Regina, the Olivo, and the Savi—are used internally; the other three—the Terme Leopoldine, the Cipollo, and the Bagno Regio—are reserved for bathing; though, as Dr. Paolo Casciani, another skilled consultant, has shown, the Acqua Leopoldina can be used as a beverage with the best results, particularly in habitual constipation, in icteric catarrh, in cerebral and pulmonary congestion, and, generally speaking,

in all cases due to sanguineous plethora. Concurrently with the specific action of the waters the diet is rigidly attended to, and the beautiful open country, diversified with countless drives and walks—now on the winding level, now on the gentle slope, now on the mountain plateau—offers every facility for being much out of doors in the bright, crisp, exhilarating, restorative air.

Light refreshments preceded our round of the waters above described, and shortly after 10 A.M. a drive was taken to the celebrated grotto of Monsummano, a labyrinth in the interior of the mountain, leading into recesses whose spongy walls exude a vapour at different degrees of temperature which exerts the most beneficial influence on torpid skins, and are greatly prized in all cases where a stimulated cutaneous transpiration is indicated. Kossuth attributed the last twenty-three years of his long life to the saving virtues of the Monsummano "cure," which he underwent in 1871; while Garibaldi in 1867 found much benefit from it in his rheumatoid arthritis, and would have found more if his agitated life at that period had allowed him to persevere in the course. Since the former of these dates the Giusti family—proud of Monsummano as birth-place of their great scion, Giuseppe Giusti, the brilliant poet and patriot of Tuscany—have lavished much of their ancestral resources in extending and perfecting the "Stabilimento," which is now one of the most comfortable in Europe, an advance on the previous state of things not less conspicuous, it is fair to say, at Montecatini, where the hotels, *pensions*, and private residences are now specially adapted for a refined as well as a numerous *clientèle*.

Of this we had some means of judging at the magnificent banquet which, on our return from Monsummano, awaited us at the chief hotel of Montecatini, where a series of toasts were eloquently given and responded to, including one to his Excellency Signor Martini, Dr. Baccelli's predecessor as Minister of Public Instruction, for the benefits he had lavished on his native Val di Nievole, and a final one to Signor Crispi, the Prime Minister, for his energy and enlightenment in giving speedy and prompt effect to the sanitary code elaborated by the eminent Garibaldian surgeon, Dr. Bertani.

The subsequent hospitalities vouchsafed us at Florence, the receptions, excursions, and, above all, the great banquet given in the grand hall of the Società degli Impiegati Civili (Civil Servants' Association), would occupy more space than the close of this letter admits of. Suffice it to say that at the banquet in question the chair was taken by Professor Durand Fardel, President of the Hydrological Society of France, supported on the right by Professor Grocco, Professor Vinai, Professor Kocher of Berne, and others hardly less distinguished; and on the left by Professor Chiminelli, Dr. Carmichael, Professor Chiarugi, Professor Ebstein, and similar representative names. The speaking (in Italian and French) was of exceptional brilliancy, Kocher's French reply to the toast of the Swiss school being remarkable for its felicity in characterising Italy's contributions to medicine, while Professor Demosthen of Bucharest gave the toast of the Royal Family and the Prince of Naples with a rhetorical force not unworthy of his name. Professor Grocco, "the idol of the students," acknowledged the toast of his own health in a manner which, if possible, enhanced his popularity, and the series closed with admirable speeches from two of the consultants at Montecatini—Dr. Casciani and Dr. Pio Fedeli.

Thus closed for the Congressisti their well-organised visits to the Neapolitan and Tuscan spas, after which they dispersed in the north-westerly and north-easterly directions; those who took the former pausing (a few of them, at least) at Acqui and other famous "Stabilimenti" in Piedmont, which certainly merit a more extended recognition from the transalpine profession than they have hitherto received, while those whose home journey lay in the latter did not fail to stop at Battaglia, the excellent natural source near Padua, situated in a region which literally teems with mineral waters, some of them, like Abano, known and prized from remote antiquity. Like the Piedmontese Acqui, these Venetian resorts are particularly rich in muds (*fanghi*) taken out of hot basins and applied either generally or partially as the patient may require. Here again improvement, certainly called for, has been effected in the hotel and *pension* accommodation, and the virtues of the local waters may now be utilised without discomfort or any of the familiar drawbacks which in Italy have so long been allowed to militate against her balneary resources.

On a retrospect of the Congress and the proceedings that followed in its wake, those of the members who took part in the hydrological excursions will be found to have carried away the most pleasant recollections, redolent as these are of what Italy can do when she organises well and carefully adapts her entertaining power to the number and character of her guests. And this holds good not only of such great professional gatherings as the Congress, but also of such permanent aggregations of the invalid public as are met with at her mineral water resorts and balneary "Stabilimenti."

THE INFLUENCE OF THE LEICESTER FEVER HOSPITAL.

LEICESTER'S attitude with regard to the Vaccination Acts is too well known to need comment, and, furthermore, the unique position which the place once held has unfortunately ceased to exist by virtue of other towns having followed the bad example. We propose, however, by the light of Dr. Joseph Priestley's last annual report to examine the manner in which Leicester carries out that part of the so-called "method" which consists, or rather is supposed to consist, in isolation. Our readers will probably remember that in 1892, when small-pox began to appear in Leicester, an attempt was made to treat the disease on the same site and simultaneously with scarlet fever; and it may also be remembered that when small-pox spread (as it did almost at once) to the scarlet fever patients, the sanitary committee not only closed the hospital against scarlet fever, but actually returned all the patients suffering from that disease to their homes. Since then the hospital has been used solely for small-pox, and the exhaustive and temperate report which Dr. Priestley has recently issued gives some idea of what influence the hospital operations have had upon the prevalence of the disease.

The hospital is situated at Freaks' Ground to the west of the town, its position being comparatively isolated, except to the south and south-west, where it is separated from an aggregation of 600 houses by a stretch of vacant land some 620 feet across, and in these houses there reside, approximately, 3000 persons. A circle having a radius of 2000 feet from the centre of the hospital site takes in the whole of these houses, while a circle with a half-mile radius embraces but few additional dwellings; indeed, as Dr. Priestley points out, Newfoundpool may be regarded and treated of as a separate suburb. Now it appears that during June, 1893, a considerable increase in the number of cases notified from Newfoundpool took place, and Dr. Priestley states that it was impossible to account for them save upon a thesis that they were caused by the proximity of the hospital. There were in all between Dec. 23rd, 1892, and Dec. 12th, 1893, 55 cases in Newfoundpool, a number which represented thirty-eight infected houses. Of this number of houses sixteen were in the road which was nearest and which ran parallel to the hospital site, and of these sixteen, eleven were on the hospital side of the road. Thus, of 347 cases of small-pox which occurred in Leicester during the recent outbreak, 55 were located in Newfoundpool, the incidence on that district being 18·3 per 1000 of the population, as against 1·6 per 1000 in the remainder of the borough. Dr. Priestley separated as far as possible, both for Newfoundpool and the remainder of the borough, the cases which had apparently followed directly upon prior ones from those in which no such explanation was forthcoming, and he found that whether the numbers were looked at from the point of view of infected persons or houses the incidence on the Newfoundpool district was fifteen times greater than in the rest of the borough, a condition of affairs which he thinks "has been brought about by the close proximity of the small-pox hospital." It seems, too, that the hospital was most potent for harm as a focus of infection during the month of June, at a time, that is to say, when there was a weekly average of 49 cases in hospital, an average in excess of any month during the year except February, when it reached 54. A consideration of these figures naturally raised the question as to why the disease spread to Newfoundpool in June and not in February. If the spread from the hospital was by means of personal contagion

certainly the same results might be expected in the one month as in the other; indeed, an excess might have been anticipated in February, since this was apparently the period of greatest activity in the operations of the hospital; but in addition to this agency of personal infection as an entire explanation of the phenomena being rendered improbable by the marked difference in the two months, Dr. Priestley remarks: "Personally I have been unable, however, to trace any contact, and the stringent rules which have been enforced during our epidemic have, moreover, practically rendered such a source impossible." The possibility of the spread by means of drains is considered; but the fact that the drainage of Newfoundpool was found generally to be satisfactory, and that no cases of typhoid fever originated there during the year in spite of that disease prevailing widely in Leicester, render, in his opinion, spread by such means unlikely, and we must say that we think such an explanation is certainly improbable. When, however, the meteorological phenomena of February and June were compared a clue to the remarkable difference between the incidence of the disease at the Newfoundpool district during February and June at once suggested itself, and it was found that during February the direction of the prevailing air currents was such as to waft infection *away* from Newfoundpool, while in June the wind was for the most part in a direction from the hospital towards Newfoundpool. In other words, it appears probable that another illustration of the aerial convection of small-pox from a hospital used for its isolation to the houses in its vicinity is here afforded.

Doubtless personal contagion has been an important factor in increasing the number of cases in Newfoundpool, and naturally the influences of aërial convection do not exclude those of personal contagion; in fact, it appears that in this instance, as in so many others, both agencies have been at work. Summing up the effects of the hospital operations, Dr. Priestley states, after considering other cases which may have been due to hospital influence, that "85 cases may be said to have arisen in all probability from your own small-pox hospital, and these, too, out of an epidemic of 347 cases—i.e., 24·4 per cent. of your cases *may* have arisen from hospital infection." In spite of these warnings, or, rather, perhaps we ought to say realisations of warnings, the sanitary committee have decided to erect two buildings, with separate administrative offices, at one end of the present site; and to continue, at any rate for the present, to treat small-pox and other infectious diseases upon the same site. At the end of his small-pox report Dr. Priestley remarks, "I beg once more to emphasise the *very great* importance of there being at once procured a separate site (far away from the town and inhabitants) upon which to erect a small-pox hospital," and for ourselves we can only pity the people of Leicester if their representatives fail to act upon Dr. Priestley's recommendations.

ACTION AGAINST A LIVERPOOL DENTIST.

A REMARKABLE action against a dentist was heard at the Liverpool Assizes last week. A servant girl named O'Toole sought damages from James H. Parkinson, a dentist, of Liverpool and Manchester, for personal injuries. On Jan. 24th of the present year the plaintiff had toothache and called at the defendant's place of business in Church-street, Liverpool. She there saw an assistant named Harrison, to whom she said that she had come to have a back tooth extracted. On examining it he said, "Yes, it is badly decayed, and there are two or three other teeth in your head badly decayed, and you had better have them out as well." He is also stated to have told her that the cost of new teeth in their place would be four guineas. She replied that she was only a servant and could not afford the money. Eventually he persuaded her to accede to his suggestion, and having put her under chloroform drew the whole of her teeth, there being no medical man present. When she came to some three hours afterwards he said to her "You will have no more trouble now; they are all out." She replied, "I did not tell you to take them all out." In cross-examination her evidence was not materially shaken. Further evidence for the plaintiff was given to show that there was no necessity to extract all the plaintiff's teeth from so young a girl (twenty years of age). For the defence Mr. Harrison went into the box and stated that he had had fourteen years' experience—eight years in the mechanical department and six years in the operating-room. He stated that he suggested to the plaintiff that if she had all her teeth out then and ordered an artificial set the extraction would cost her nothing; that was the ordinary thing. She asked the cost, and he said "4 guineas." After deliberating a little she then asked him to take them all out. He stated that he used the stethoscope to see that there was no disease of the heart. He had had special training in regard to diseases of the heart. In cross-examination he admitted that he was not a fully qualified dentist but said that he was registered as a medical student, and was awaiting his examination. Dr. Hugh Alexander Clarke gave it as his opinion that Mr. Harrison was a skilful dentist, to whom he recommended patients. Witness also said, in cross-examination, that, in the absence of a medical man and of any relatives, he would not have considered it right to administer chloroform to the patient. Mr. Justice Wills in summing up adverted to a remark of Mr. Horridge, the plaintiff's counsel, that the defendant's advertisement, "Teeth, Teeth, Teeth," was at the back of it all, and observed that it was a fair comment to make. The jury found for the plaintiff with £150 damages. This was one of those cases which, in the most unfair and cruel manner, bring discredit on the whole profession of dentistry. Not only does a man with no qualification of any sort, an assistant, perform an extensive operation, but that against the patient's will. There is an effort being made by the British Dental Association to prevent "covering," which we sincerely hope will be put into force shortly. It is also matter for the gravest censure that a person practising dentistry irregularly and having no medical diploma of any kind should have taken the serious responsibility of placing the patient under chloroform—an anæsthetic which even fully qualified and experienced medical practitioners hesitate to employ single-handed. This act, almost as much as the wholesale extraction of the teeth, shows a ruthless disregard of the patient's safety, or an amount of ignorance too gross and palpable to predicate in even the case of a person whose only claim to knowledge appears to be his being "registered as a medical student." Whether chloroform is ever required in dental practice seems doubtful; but when it is, the first principle of safety is that the administrator shall be a duly qualified medical man of experience, whose whole and sole duty it is to watch the patient during the narcosis. It is unquestionable that for unqualified persons to give chloroform is to jeopardise the patient and to render themselves liable to a charge of manslaughter. For a medical man to permit an unqualified person to give chloroform for him is to promote "covering" of the most dangerous description.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6209 births and 3446 deaths were registered during the week ending May 5th. The annual rate of mortality in these towns, which had been 18·2 and 18·3 per 1000 in the preceding two weeks, declined again last week to 17·2. In London the rate was 17·2 per 1000, and corresponded with the mean rate in the thirty-two provincial towns. The lowest rates in these towns were 11·0 in Bolton, 11·1 in Derby, 11·2 in Croydon, 11·3 in Portsmouth, and 12·8 in Norwich; the highest rates were 20·2 in Birkenhead, 20·6 in Preston, 21·3 in Liverpool, 22·8 in Salford, and 31·3 in Wolverhampton. The 3446 deaths included 546 which were referred to the principal zymotic diseases, against 518 and 558 in the preceding two weeks; of these, 200 resulted from measles, 139 from whooping-cough, 80 from diphtheria, 51 from scarlet fever, 38 from "fever" (principally enteric), 29 from diarrhœa, and 9 from small-pox. No fatal case of any of these diseases occurred last week in Plymouth, Derby, Halifax, or Sunderland; in the other towns they caused the lowest death-rates in Bolton, Oldham, and Burnley, and the highest rates in London, Birmingham, Salford, and Wolverhampton. The greatest mortality from measles occurred in London, Wolverhampton, West Ham, Leicester, and Birmingham; from scarlet fever in Salford, Swansea, and Wolverhampton; and from whooping-cough in Salford, Croydon, Newcastle-on-Tyne, Swansea, and Wolverhampton. The mortality from "fever" showed no marked excess in any of the large towns. The 80 deaths from diphtheria included 58 in London, 5 in Salford, 3 in Cardiff, and 2 each in Manchester, Huddersfield, and Leeds.

Six fatal cases of small-pox, all of which were of persons belonging to the borough of West Ham, were registered in the Metropolitan Asylum Hospital ships off Dartford, and one death each in Wolverhampton, Birmingham, and Nottingham, but not one in any other of the thirty-three towns. There were 191 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 5th inst., against 102, 148, and 151 at the end of the preceding three weeks; 64 new cases were admitted during the week, against 31, 59, and 47 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals, which had been 2128, 2172, and 2258 at the end of the preceding three weeks, had further risen to 2293 on Saturday last, the 5th inst.; 268 new cases were admitted during the week, against 260 and 296 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 304 and 255 in the preceding two weeks, further declined to 237 last week, and were 121 below the corrected average. The causes of 57, or 1·7 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Bristol, Oldham, Bradford, Leeds, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Burnley, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·5 and 19·0 per 1000 in the preceding two weeks, further rose to 20·1 during the week ending May 5th, and exceeded by 2·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16·6 in Aberdeen and in Leith, and 17·1 in Edinburgh, to 21·6 in Dundee and 22·0 in Glasgow. The 573 deaths in these towns included 40 which were referred to whooping-cough, 10 to diphtheria, 7 to scarlet fever, 7 to diarrhœa, 6 to "fever," 4 to measles, and 3 to small-pox. In all, 77 deaths resulted from these principal zymotic diseases, against 45 and 73 in the preceding two weeks. These 77 deaths were equal to an annual rate of 2·7 per 1000, which corresponded with the mean rate last week from the same diseases in the thirty-three large English towns. The deaths from whooping-cough, which had been 18 and 28 in the preceding two weeks, further rose to 40 last week, of which 26 occurred in Glasgow and 4 in Aberdeen. The fatal cases of diphtheria, which had been 4 and 14 in the preceding two weeks, declined to 10 last week, and included 6 in Glasgow and 3 in Edinburgh. The 7 fatal cases of scarlet fever showed a further increase upon the numbers in recent weeks, and included 2 each in Glasgow, Edinburgh, and Aberdeen. The deaths referred to different forms of "fever," which had risen from 5 to 12 in the preceding three weeks, declined again to 6 last week, of which 3 occurred in Glasgow. Of the 3 fatal cases of small-pox, 2 were recorded in Edinburgh and 1 in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 105 and 107 in the preceding two weeks, declined to 95 last week and were 21 below the number in the corresponding week of last year. The causes of 53, or more than 9 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·3 and 23·7 per 1000 in the preceding two weeks, further increased to 24·6 during the week ending May 5th. During the past five weeks of the current quarter the death-rate in the city has averaged 24·1 per 1000, against 18·4 in London and 17·4 in Edinburgh. The 165 deaths registered in Dublin during the week under notice showed an increase of 6 upon the number in the preceding week, and included 9 which were referred to the principal zymotic diseases, against 4 and 16 in the preceding two weeks; of these, 3 resulted from measles, 3 from whooping-cough, 3 from "fever," and not one either from small-pox, scarlet fever, diphtheria, or diarrhœa. These 9 deaths were equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 3·6 in London and 2·1 in Edinburgh. The 3 deaths from measles showed a slight decline from the number recorded in the preceding week. The fatal cases of whooping-cough, which had been 2 and 6 in the preceding two weeks, declined to 3 last week. The 3 deaths referred to different forms of "fever" exceeded those recorded in recent weeks. The 165 deaths registered in Dublin last week included 25 of infants under one year of age and 57 of persons aged upwards of sixty years; the deaths of infants corresponded with those returned in the preceding week, while those of elderly persons exceeded the number in any recent week. Five inquest cases and 3 deaths from violence were registered; and 47, or more than a fourth, of the deaths occurred in public institutions. The causes of 16, or nearly 10 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING APRIL, 1894.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during April in each of the forty-three sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 10·2 per 1000 of the population, estimated at 4,349,166 persons in the middle of this year. In the preceding five months the rates had declined from 20·5 to 8·9 per 1000. Among the various sanitary districts the rates were considerably below the average in Hammersmith, Westminster, St. Giles, St. Martin-in-the-Fields, Strand, St. Saviour Southwark, St. Olave Southwark, and Woolwich; while they showed the largest excess in St. Pancras, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Battersea, and Greenwich. The prevalence of small-pox in London showed a marked increase during April, an average of 31 cases weekly being notified, against 12, 16, and 15 in the preceding three months; of the 123 cases notified during last month, 24 belonged to Islington, 17 to Poplar, 10 to St. Pancras, 8 to Lambeth, and 6 to Shoreditch sanitary districts. The Metropolitan Asylum Hospitals contained 129 small-pox patients at the end of April, against numbers declining from 82 to 56 at the end of the preceding three months; the weekly admissions averaged 38, against 13 and 12 in the preceding two months. The prevalence of scarlet fever in London showed a slight increase upon that recorded in recent months; this disease was proportionally most prevalent in Marylebone, St. Pancras, Stoke Newington, Hackney, St. George-in-the-East, Limehouse, Battersea, Camberwell, Greenwich, and Plumstead sanitary districts. The Metropolitan Asylum Hospitals contained 2182 scarlet fever patients at the end of April, against 2404, 2139, and 2070 at the end of the preceding three months; the weekly admissions averaged 255, against 207 and 213 in the preceding two months. Diphtheria also showed increasing prevalence during the month under notice; among the various sanitary districts this disease showed the highest proportional prevalence in Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Newington, and Bermondsey. There were 316 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of April, against 320, 303, and 307 at the end of the preceding three months; the weekly admissions averaged 67, against 65 and 64 in the preceding two months. The prevalence of enteric fever showed a very slight decline during last month; among the various sanitary districts this disease was proportionally most prevalent in Marylebone, Bethnal Green, and Lambeth. Erysipelas showed the highest proportional prevalence in Hampstead, Limehouse, Mile End Old Town, Poplar, and Greenwich sanitary districts. Three cases of puerperal fever were notified in Islington, 3 in Wandsworth, 2 in Hackney, and 2 in Lambeth sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, especially of those resulting from zymotic diseases, affords the most trustworthy data upon which to calculate reliable rates of mortality. During the four weeks ending Saturday April 28th, the deaths of 6136 persons belonging to London were registered, equal to an annual rate of 18·4 per 1000, against 23·0, 19·1, and 19·8 in the preceding three months. The lowest death-rates during April in the various sanitary districts were 8·8 in Hampstead, 10·0 in Stoke Newington,

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—APRIL, 1894.

(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1894.	Notified Cases of Infectious Disease.										Deaths from Principal Infectious Diseases.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,349,166	123	1635	920	2	173	17	23	496	3	1397	10·2	9	498	102	224	242	1	31	—	37	1144	3·4	6136	18·4	138
West Districts.																										
Paddington	121,583	1	31	37	—	5	—	1	8	—	83	8·9	—	3	2	10	7	—	1	—	—	23	2·5	141	15·1	114
Kensington	167,350	1	41	20	—	5	1	1	17	—	86	6·7	—	15	2	7	7	—	1	—	1	33	2·6	224	17·4	172
Hammersmith	105,596	—	18	16	—	4	—	1	10	—	49	6·0	—	6	—	3	2	—	1	—	1	13	1·6	136	16·8	96
Fulham	110,993	3	36	22	—	3	—	—	7	—	71	8·3	1	55	2	6	7	—	—	—	—	71	8·3	202	23·7	186
Chelsea	99,052	2	31	16	—	2	—	1	8	—	60	7·9	—	9	—	6	4	—	—	—	1	20	2·6	122	16·1	171
St. George Hanover-square	75,033	—	31	6	—	2	—	—	4	—	43	7·5	—	7	2	2	3	—	—	—	—	14	2·4	94	16·3	133
Westminster	54,414	1	17	5	—	1	—	—	1	—	25	6·0	—	6	—	2	1	—	—	—	2	11	2·6	93	22·3	163
St. James Westminster	23,571	—	5	3	—	—	—	—	3	—	11	6·1	—	1	—	2	1	—	—	—	—	4	2·2	33	18·3	195
North Districts.																										
Marylebone	138,554	3	67	23	—	10	—	1	18	—	122	11·5	—	6	10	8	3	—	1	—	2	30	2·8	211	19·8	111
Hampstead	75,443	1	8	10	—	5	—	1	14	—	39	6·7	1	1	1	2	2	—	—	—	—	7	1·2	51	8·8	102
St. Pancras	239,739	10	109	49	—	10	—	1	37	—	216	12·0	—	11	3	11	12	1	1	—	1	40	2·2	321	17·9	133
Islington	351,900	24	124	68	—	8	—	3	38	—	265	10·4	1	37	12	19	20	—	2	—	3	94	3·7	446	17·5	121
Stoke Newington	34,172	—	17	2	—	—	—	—	1	—	20	7·7	—	—	—	—	1	—	—	—	—	1	0·4	26	10·0	75
Hackney	211,493	4	102	47	—	6	—	2	25	—	186	11·5	—	25	8	7	8	—	1	—	3	52	3·2	300	18·5	138
Central Districts.																										
St. Giles	88,144	1	7	3	—	—	—	—	6	—	17	5·8	—	1	—	3	2	—	—	—	—	6	2·1	54	18·5	70
St. Martin-in-the-Fields	13,783	1	2	—	—	—	—	—	2	—	5	4·7	—	3	—	—	—	—	—	—	—	3	2·8	18	17·0	176
Strand	23,179	1	5	2	—	—	—	—	—	—	8	4·5	—	—	—	1	2	—	—	—	—	3	1·7	37	20·8	190
Holborn	32,438	—	6	3	—	—	—	—	6	—	15	6·0	—	3	—	2	4	—	1	—	—	10	4·0	57	22·9	130
Clerkenwell	65,312	1	14	8	—	1	—	—	9	—	33	6·6	—	3	—	1	3	—	—	—	1	8	1·6	91	18·2	158
St. Luke	41,168	2	9	9	—	—	—	—	7	—	27	8·5	1	—	—	—	—	—	—	—	1	2	0·6	77	24·4	134
City of London	34,832	—	14	2	—	1	—	—	4	—	21	7·9	—	1	1	—	1	—	1	—	1	5	1·9	53	19·8	341
East Districts.																										
Shoreditch	123,186	6	40	25	—	2	—	—	11	—	84	8·9	1	8	3	10	8	—	1	—	—	31	3·3	199	21·1	121
Bethnal Green	129,840	4	33	58	1	14	—	1	17	—	128	12·8	—	14	2	7	6	—	1	—	1	31	3·1	190	19·1	163
Whitechapel	76,498	2	21	11	—	1	—	—	6	—	41	7·4	—	10	2	3	12	—	—	—	1	28	4·8	151	26·1	180
St. George-in-the-East	45,360	1	22	17	—	4	—	—	3	—	47	13·5	—	8	1	3	5	—	—	—	—	17	4·9	85	24·4	194
Limehouse	57,000	2	40	19	—	1	—	—	14	—	76	17·4	—	13	4	4	3	—	1	—	2	27	6·2	128	29·3	188
Mile End Old Town	108,242	4	44	38	—	4	2	—	19	—	111	13·4	—	21	3	6	12	—	1	—	2	45	5·4	176	21·2	123
Poplar	170,217	17	55	94	—	6	—	—	34	—	206	15·8	1	30	1	15	14	—	3	—	—	64	4·9	275	21·1	155
South Districts.																										
St. Saviour Southwark	26,712	—	3	4	—	—	—	—	1	—	8	3·9	—	18	2	1	1	—	—	—	—	22	10·7	71	34·6	220
St. George Southwark	60,060	1	27	14	—	2	—	—	6	—	50	10·9	—	16	3	5	3	—	—	—	1	28	6·1	102	22·1	134
Newington	118,512	4	49	38	—	4	—	—	11	—	106	11·7	1	16	3	6	6	—	—	—	1	33	3·6	171	18·8	123
St. Olave Southwark	12,984	—	1	1	—	—	—	—	1	—	3	3·0	—	2	—	—	1	—	—	—	—	3	3·0	18	18·1	69
Bermondsey	84,053	2	20	32	—	1	—	—	6	—	61	9·5	1	21	2	13	7	—	—	—	—	44	6·8	161	25·0	197
Rotherhithe	40,385	—	16	12	—	2	—	1	6	—	37	11·9	—	9	1	2	4	—	—	—	2	18	5·8	57	18·4	158
Lambeth	282,574	8	95	39	1	36	8	2	25	3	217	10·0	—	40	11	14	11	—	5	—	1	82	3·8	399	18·4	130
Battersea	161,558	1	97	38	—	2	3	1	21	—	163	13·2	—	33	3	8	6	—	3	—	1	54	4·4	189	15·2	112
Wandsworth	179,518	1	61	19	—	11	2	3	20	—	117	8·5	—	9	1	4	10	—	3	—	3	30	2·2	179	13·0	110
Camberwell	248,893	5	124	48	—	10	—	—	25	—	212	11·1	1	22	1	14	22	—	—	—	3	63	3·3	300	15·7	146
Greenwich	173,128	2	94	39	—	6	1	1	26	—	169	12·7	—	10	7	9	12	—	1	—	—	39	2·9	246	18·5	138
Lewisham (excluding Penge)	79,908	—	37	13	—	2	—	1	9	—	62	10·1	—	5	2	5	4	—	—	—	—	16	2·6	94	15·3	133
Woolwich	42,309	2	13	1	—	1	—	—	1	—	18	5·5	—	—	1	—	2	—	—	—	1	4	1·2	57	17·6	130
Lee	38,172	1	12	2	—	3	—	—	4	—	22	7·5	—	—	3	2	1	—	—	—	1	7	2·4	43	14·7	63
Plumstead	59,233	1	30	7	—	2	—	1	5	—	46	10·1	—	—	3	1	2	—	2	—	—	8	1·8	58	12·8	105
Port of London	—	3	7	—	—	1	—	—	—	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 52 cases of membranous croup.

† Including deaths from membranous croup.

12·8 in Plumstead, 13·0 in Wandsworth, 14·7 in Lee, 15·1 in Paddington, and 15·3 in Lewisham; the highest rates were 23·7 in Fulham, 24·4 in St. Luke and in St. George-in-the-East, 25·0 in Bermondsey, 26·1 in Whitechapel, 29·3 in Limehouse, and 34·6 in St. Saviour Southwark. During the four weeks of April 1144 deaths were referred to the principal zymotic diseases in London; of these, 498 resulted from measles, 242 from whooping-cough, 224 from diphtheria, 102 from scarlet fever, 37 from diarrhœa, 31 from enteric fever, 9 from small-pox, and 1 from typhus fever. These 1144 deaths were equal to an annual rate of 3·4 per 1000, against 2·9, 2·5, and 2·9 in the preceding three months. Among the various sanitary districts the lowest zymotic death-rates were recorded in Hammersmith, Hampstead, Stoke Newington, Strand, Clerkenwell, St. Luke, Woolwich, and Plumstead; and the highest in Fulham, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, St. Saviour Southwark, St. George Southwark, and Bermondsey. Nine fatal cases of small-pox were registered in London during the month under notice, the corrected average number in the corresponding periods of the preceding ten years being 24; these 9 deaths were recorded in as many different sanitary areas. The 498 deaths referred to measles were 230 above the corrected average number; among the various sanitary districts this disease showed the highest proportional fatality in Fulham, St. Martin-in-the-Fields, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, St. Saviour Southwark, St. George Southwark, Bermondsey, and Rotherhithe. The 102 fatal cases of scarlet fever were 43 above the corrected average number; this disease was proportionally most fatal in Marylebone and Limehouse sanitary districts. The 224 deaths referred to diphtheria were considerably more than double the corrected average; among the various sanitary districts this disease showed the highest proportional fatality in Paddington, St. Giles, Shoreditch, St. George Southwark, Bermondsey, and Lewisham. The 242 fatal cases of whooping-cough were 63 below the corrected average; this disease was proportionally most fatal in Holborn, Whitechapel, St. George-in-the-East, Mile End Old Town, Poplar, Bermondsey, and Rotherhithe. The 31 deaths referred to enteric fever were slightly below the corrected average; there was no marked excess of enteric fever mortality in any of the sanitary districts. The 37 fatal cases of diarrhœa were considerably below the corrected average. In conclusion, it may be stated that the mortality in London during April from these principal zymotic diseases exceeded the average by no less than 36 per cent., owing principally to the excessive fatality of measles and diphtheria.

Infant mortality in London during the month under notice, measured by the proportion of deaths under one year of age to registered births, was equal to 138 per 1000, and almost corresponded with the average; the lowest rates were recorded in Hammersmith, Stoke Newington, Hampstead, St. Giles, St. Olave Southwark, Lee, and Plumstead; and the highest rates in Fulham, St. James Westminster, Strand, City of London, St. George-in-the-East, Limehouse, St. Saviour Southwark, and Bermondsey sanitary districts.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE newly created half-pay appointment at Eastbourne has been conferred upon Brigade-Surgeon-Lieutenant-Colonel Fannin, retired pay. Surgeon-Majors Flood and Hackett have been posted to the Western District for duty, and Surgeon-Captain Saunders to the North-Western District. Surgeon-Major Fowler has arrived from India, and Surgeon-Major Tuthill has been granted leave from Gibraltar. Surgeon-Captain Cummins has been posted to the Cork District, and Surgeon-Captain Skerrett has been transferred from Dublin to the Curragh.

ARMY MEDICAL STAFF.

Surgeon-Major Oswald G. Wood, M.D., has been appointed Surgeon-Lieutenant-Colonel. The undermentioned Surgeon-Majors to be Surgeon-Lieutenant-Colonels: Lloyd B. Ward, William B. Miller, M.D., John Martin, John J. Greene, M.B., Nathaniel McCreery, and Joseph A. Gormley, M.D. Surgeon-Captain Herbert Crowley Dent, half-pay, has been placed on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICE.

The following appointments are announced: Surgeon-Lieutenant C. Barry to have Medical Charge of the Civil Station of Dinapur in addition to his own duties. Surgeon-Captain D. M. Moir, Deputy Sanitary Commissioner, Metropolitan and Eastern Bengal Circle, to act as First Resident Surgeon, Presidency General Hospital. Surgeon-Captain J. C. S. Vaughan, Officiating Resident Physician, Medical College Hospital, and Professor of Pathology, Medical College, Calcutta, to act as Deputy Sanitary Commissioner, Metropolitan and Eastern Bengal Circle. Surgeon-Lieutenant-Colonel R. Caldecott, I.M.S. (Bombay), to be Residency Surgeoncy and Civil Administrative Medical Officer in Central India. Surgeon-Captain C. M. Moore, M.D., I.M.S. (Bombay), to be Medical Officer of the 2nd Regiment, C.I.H., and of the Western Malwa Political Agency. Surgeon-Lieutenant T. Jackson, M.B., B.S., on general duty, Sind District, to act as Civil Surgeon, Jacobabad, in addition to his own duties. The following promotions are notified:—Surgeon-Majors who have completed twenty years' full-pay service to be Surgeon-Lieutenant-Colonels: Samuel Haslett Browne, M.D., Edward Mair, M.B.; James Armstrong, M.B.; Horace Parr Yeld; John Campbell Fullerton, M.B.; and Charles James Hislop Warden. Surgeon-Captains who have completed twelve years' full-pay service to be Surgeon-Majors: Richard Havelock Charles, M.D.; George Duncan, M.B.; and William Ainley Sykes, D.S.O., M.B. Brigade-Surgeon-Lieutenant-Colonels Temple and Wright at Shahjahanpur, and Cameron at Benares, retire from the service. Surgeon-Lieutenant-Colonel O'Brien from Fyzabad replaces Brigade-Surgeon-Lieutenant-Colonel Cameron, and Surgeon-Major Sweeney from Kheri succeeds Surgeon-Lieutenant-Colonel O'Brien. Brigade-Surgeon-Lieutenant-Colonel J. F. Keith, M.D., I.M.S., retires from the service.

NAVAL MEDICAL SERVICES.

The following appointments are announced: Staff-Surgeons: H. S. Crocker, to the *Rodney*; A. L. Christie, to Portland Sick Quarters; Edward J. Biden, temporarily to H.M.S. *Mersey*.

Surgeon Bowen Stilon Mends withdraws from the Naval Service, with a gratuity.

VOLUNTEER CORPS.

Rifle: 3rd Volunteer Battalion, the Prince Albert's (Somerstshire Light Infantry): Augustus William Dalby, Gent., to be Surgeon-Lieutenant.

LORD WOLSELEY ON ARMY REFORMS.

Lord Wolseley contributes an article to the recently published volume on "The Armies of To-day: a Description of the Armies of the Leading Nations at the Present Time," which strikes us as being both instructive and interesting from the fact that he has played a prominent part in bringing about the present organisation of our own army and the reforms which have taken place in it, as well as from the fact that he deals with fundamental questions affecting army hygiene, efficiency, and army expenditure. Lord Wolseley's views regarding War Office administration and a cheese-paring policy are pretty well known. He considers that in the long run it would pay the nation hand-over-hand to offer the soldier the pay and rations which the soldier of the United States army receives, that it would provide us with a more efficient army than we have had since Cromwell's time, and be in the end far more economical in that we should save large sums in our hospitals and prisons; a far larger number of really eligible men would seek to enlist, sickness and invaliding and premature breakdown in constitution would be greatly diminished, and there would be a corresponding decrease of numbers in our hospitals and on the pension-list. It would, he says, pay us well to give every soldier on duty at home and abroad 6*d.* a day, at least, in addition to his present pay, and to make his barracks comfortable by lighting and heating them properly. No Ministry, he adds, is likely to take up this big question unless the nation does so and presses it upon their consideration.

UNIFORMS BILL.

Medical and other officers, in common with everybody else, we should imagine, will be glad to find that the Uniforms Bill has passed its second reading in the House of Commons unopposed and has been referred to a Select Committee. It is time that something was done to put a stop to the spectacle of rows of "sandwich-men" parading the streets in the cast-off uniforms of British soldiers. It is obviously degrading to

Her Majesty's uniform and to the military and naval services to see a lot of poor, dirty, and miserable-looking creatures clad in cast-off uniforms crawling along our thoroughfares in single file. Apart from this form of advertising being an eye-sore, it amounts to a scandal to see Her Majesty's uniform, which was intended to be a badge of honour, put to such purposes, and there is, besides, the utilitarian consideration that it can only have a very deterrent effect on recruiting.

DEATHS IN THE SERVICES.

Surgeon-Major T. Park, Retired List, A.M.S., died at Milverton-lodge, South Leamington, on April 30th. He joined the army April 1st, 1850, and was at the battle of Inkerman, and the seige and fall of Sebastopol (medal with two clasps, Knight of the Legion of Honour, and Turkish medal).

Surgeon-Captain T. H. Griffith, I.M.S., recently died at Mhow, aged thirty-three years.

The Army Sanitary Committee visited the Royal Victoria Hospital, Netley, on the 9th inst. with reference to a report lately made on the condition of the wards of the hospital.

Notification has been received from the War Office that H.M.S. *Malabar* left Bombay on April 17th with 373 invalids for this country.

New Regulations have been issued for the Army Medical Service.

A class for the instruction of medical officers in the inspection of meat has been formed at Edinburgh.

Correspondence.

"Audi alteram partem."

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—On seeing Dr. S West's remarks on the relationship of pneumonia to influenza in his address to the Harveian Society, which was published in THE LANCET of April 28th, it occurred to me that a few observations I made as medical registrar at Westminster Hospital during the years 1891, 1892, and 1893 on this subject might be of interest. In the report for the year 1891 the following remarks were made (referring to lobar pneumonia only): "Eighty-three cases of lobar pneumonia were treated in the hospital during the year 1891. This is considerably above the average of the last few years, and most notably in the case of the first six months of the year. For this period the average during the last six years has been 30·3; in 1891 the number was 70. It was during the months of April, May, and June that London was suffering from a severe epidemic of influenza, and it is difficult not to associate the two facts, although the cases of pneumonia directly following influenza were only 2, as far as could be ascertained on careful inquiry."

In 1892, although there was during the first six months another influenza epidemic, there was no increase in the pneumonia admissions, only 55 cases being treated. In 1893, however, when there was a third influenza epidemic, the total rose again to 102, and the increase again occurred mainly during the first six months of the year, there being 65 cases admitted during this period; so that, if we take the average admissions into the hospital of patients suffering from lobar pneumonia during January to June for the six years 1885–1890 as 33·3, we have during the three subsequent years 70, 55, and 65, giving an average of 63·3 cases, the admissions during the influenza years being thus very nearly double those of the years previously (a proportion exactly coinciding with that recorded by Dr. West), from which it would seem quite justifiable to conclude that many of these pneumonia cases have their origin in influenza. And so far the matter seems simple enough; but when one turns to the direct connexion between the two one finds, after careful inquiry in each case into the history of preceding influenza, in each year only 2 cases in which there was a clear history of such an attack—6 in all out of 240 cases. I made the inquiry myself in almost every instance, and soon found that it was most difficult to get any real evidence of an attack of influenza in any way antecedent, although often the patient himself believed and told his friends that "his attack of pneumonia had come on after influenza," therein following the fashion of the day. I do not for a moment deny that there is a very close connexion between the two diseases. I think the increase in our admissions during 1891 and 1893 clearly shows it; but it is a curious fact that it is so difficult to get any definite evidence of preceding influenza. It may be explained, perhaps, by the pneumonia coming on so immediately after the influenza that the pains of influenza were merged in the febrile pains of pneumonia; but still one would expect to find more cases with a distinct interval. There is, I think, no doubt that during the last few years pneumonia has tended to run a more atypical course than before, and that there has been a larger number of cases in which the fever has subsided by lysis. Of the 240 cases crisis occurred in 160, lysis in 42, and death in 63, so that lysis occurred in one-sixth of all the cases, and during 1891 the proportion rose to one-fourth. (This was also, it will be noted, the year of the most typical influenza.)

But as to this point I can only speak hesitatingly, as it is extremely difficult to ascertain what may be looked upon as the normal proportion between the cases ending by crisis and those by lysis. In Dr. Sturges' book on "Pneumonia" (second edition) he says that in less than a third of the cases investigated by the Collective Investigation Committee crisis occurred, the other two-thirds being presumably made up of deaths and recoveries by lysis; but he tells me that his feeling with regard to the pneumonia cases of the last three years is the same as my own—namely, that there have been more atypical cases than usual, and that a larger proportion of cases have ended by lysis than usual. The subject is such an extensive one that I cannot here do more than call attention to the facts I have observed, which seem to me to be a further proof (if that was needed) of the wide influence of the influenza poison in the production of disease, and that it may sometimes simply produce an attack of so-called influenza, but at others directly induce an attack of pneumonia indistinguishable from ordinary lobar pneumonia.

I have not said anything here with regard to the relationship of lobular pneumonia and influenza, because the cases I investigated were exclusively lobar pneumonia, but possibly the difficulty of distinguishing these diseases in some instances may be the explanation of the somewhat varying opinions one hears as to the relationship of lobar pneumonia and influenza. I am, Sirs, yours faithfully,

Lower Seymour-street, W. W. A. WILLS.

To the Editors of THE LANCET.

SIRS,—With reference to the most exhaustive and most elaborate address of Dr. S. West on influenza we must acknowledge he has clearly and lucidly placed before us what is the usual history and what are the various types of an influenzal attack. He classes influenza with zymotic diseases, and while doing so says "it may assume any one of four different types: the simple febrile, the catarrhal, the gastro-intestinal, and the nervous." What I wish to draw attention to is that if we admit influenza to be zymotic and class it with the fevers we assign to it a much wider significance in virtue of nidus and of specific lesion than is accorded to any other fever. Typhoid fever has its lesion in the gut, specific pneumonia in the lung, meningitis and cerebro-spinal meningitis in the membranes of the brain and cord, but the germ of specific influenza seems to find a nidus in any one of the different systems or organs of the body, and according to the system it affects so does it vary in the symptoms of manifestation. How is there this varied range to the attack of the influenza spore or germ, at one time gaining a nidus in one organ, at another time in another? Does the nature of the germ vary with the season of the year, and is it modified in its development with the sanitary or insanitary surroundings of the person, and further by any systemic proclivity on the part of the individual? It is no easy matter—perhaps it is impossible—to distinguish the period of incubation of any specific fever from that of the specific influenzal attack; there are the headache, backache, &c., and usual constitutional disturbance, and it is only when the special lesion of the peculiar fever has become manifest that diagnosis is possible. The spore of influenzae seems to be universal in its power to attack any one organ or system, and the specific fever is held limited to its own particular organ, though the starting symptoms of every specific fever are identical with those of the influenzal attack. Now, if the spore of influenza be modified by season and by sanitary or insanitary

conditions—i.e., by surroundings,—and still further by systemic cultivation in the individual, may there not be some reason to regard the frequent complications of influenza as peculiar further developments instead of accidental intercurrent complications?—I am, Sirs, yours truly,

WM. CRAIG, M.B., C.M. Edin.

Foulford, Cowdenbeath, May 2nd, 1894.

To the Editors of THE LANCET.

SIRS,—In order that acute œdema of the larynx may not be omitted from the list of sequelæ of influence, as happens in Dr. Samuel West's paper, I venture to send this observation. I have seen in a short space of time three adults, two of them in consultation, who, shortly after having influenza, were attacked with the malady acute œdema of the larynx, scarification being necessary to make the patients' lives safe. Since I have been in this town—nearly ten years—I do not remember having seen another case of acute laryngeal œdema. I am, Sirs, yours faithfully,

Canterbury, May 5th, 1894. PUGIN THORNTON.

"THE ANTISEPTIC DOCTRINE OF MIDWIFERY."

To the Editors of THE LANCET.

SIRS,—I was much interested in the leading article which appeared in THE LANCET on April 14th last relative to antiseptic midwifery. It is a strange fact, but nevertheless significant of the grim irony of fate, that two leading members of the profession who have made bacteriology and the antiseptic treatment of wounds and disease generally their life-study have lost their wives from what is considered to be a preventable cause—viz., puerperal septicæmia. However anxious a medical man may be to prevent such a calamity occurring to his lying-in patients, (1) by washing his hands in hot water with soap and some disinfectant such as iodine or perchloride of mercury, (2) by lubricating his hands with carbolic oil, and (3) by the use of iodine or mercury as an antiseptic both during and after delivery, unless he has the coöperation of the nurse the secretions are apt to undergo decomposition, and if the vital resistance of the patient be defective a few hours are sufficient for the blood to be saturated with septic germs. In ordinary labours perhaps one nurse is sufficient, but in many cases a relative should practically take the charge of the baby for the first fortnight if the patient be considered too delicate to suckle the child; and if her health permitted her to do so the infant should be as much as possible in another room, so that the patient might have a chance of recuperation in the matter of rest and sleep. Unfortunately most people imagine that when the baby is born the tug of war is over, whereas, in reality, mostly then the danger arises. The after-treatment in midwifery, as well as in surgery, is all-important, and for at least fourteen days after the birth of the baby much vigilance is necessary. It is, however, a disgraceful fact that the ordinary nurse cannot be trusted to keep a patient perfectly clean, especially when she assures the medical attendant that the vagina is being syringed twice daily with tincture of iodine and hot water and fresh antiseptic pads are used every two hours.

Dr. Boxall mentions iodism as one of the risks of using iodine; but whoever has seen such a result by using one drachm of tincture of iodine to a pint of hot water? Corrosive sublimate has the advantages of being cheap and effective, but it is hardly necessary for ordinary midwifery patients to run the risk of mercurial poisoning when we have such a safe, reliable, and speedy deodoriser and antiseptic as iodine. Some medical men personally attend from two to four hundred confinements yearly, and if they are to be constantly in contact with mercury solutions surely it would not be beneficial to them. That mercury is absorbed by the skin is generally believed. Personally the risks of iodine to the medical man are not so great as those of mercury. The welfare and safety of our patients must, however, be our first consideration. Our own health and reputation are of secondary importance. Every confinement must be undertaken with a grave sense of responsibility. It would be well if the relatives and friends of the patient would leave the medical man to do what he thought was best for his patient, and would not be present at the time of labour, but reserve their energies for lending a helping hand when it is wanted in the anxious days that follow delivery.

One difficulty we have to contend with is the diet of the patient. Nurses believe that inflammation is induced by the early administration of solid food, whereas the contrary is oftentimes the case. As much nourishment as can be digested, with pure air, perfect cleanliness, and freedom from care of the baby, or any other source of irritation, should be the course of treatment. That every lying-in patient may breed puerperal fever within her own body and be a source of danger to others is as patent as the danger is from without, either by contact with any form of decomposition or the absorption of septic germs from foul air. Self-infection is favoured by low diet and all depressing measures, and allowing the patient to get exhausted previously to using forceps. The forceps is the great foe to disease and death in the lying-in room if judiciously used. In patients suffering from debility the risks of using the forceps are not to be compared to the grave dangers of leaving things to so-called nature. When the second stage of labour has set in, every hour of delay is a source of peril to the patient, especially when there is atony of the womb.

In your article no mention is made of this all important matter, that one of the greatest predisposing causes of septicæmia is prolonged and powerless labour. In addition I may point out that the antiseptic treatment has been proclaimed for the last twenty years, and in Playfair's "Midwifery," published in 1876, great stress is laid on antiseptic precautions and treatment, and nothing more sensible has been written since on the subject.

During the last eighteen years I have never attended a midwifery case without antiseptics. I wash the patient after delivery with some antiseptic and hot water, and give special and emphatic directions relative to the use of disinfectants. The results on the whole, amounting to thousands of cases, have been gratifying, but there have been four or five cases which, in spite of every effort on my part, have turned out badly. We do not know what is said or being done behind our backs. Success we can deserve, but we cannot command it. What stops the way is oftentimes the thoughtlessness and conceit of the so-called experienced monthly nurse and the contempt she affects for new-fangled notions and antiseptic fads. Yet the medical man is her best friend by helping her as much as he can to earn a livelihood. Her gratitude is shown by want of loyalty, and disobedience.

I am, Sirs, your obedient servant,

RICHARD PARAMORE, M.D.

Gordon-square, W.C., May 1st, 1894.

"EMPYEMA IN CHILDHOOD."

To the Editors of THE LANCET.

SIRS,—I have read with much interest Mr. J. P. Wightman's paper in your last number on "Empyema in Childhood," with his instructive chronicle of mortality, which, in the case of young children, he finds to be as high as 50 per cent. There is a single sentence in that paper to which I venture to call attention. Mr. Wightman says, "Incision and drainage are in the majority of cases quite sufficient," meaning, as I take it, that what he calls "the major operation, resection of rib," is not often called for. I have lived through several stages of belief in this matter, and at one time held with him that, provided a free vent for pus could be secured and maintained, the removal of rib was unnecessary. But I have learnt better. In almost all cases, as I now believe, resection is needed. I can refer to my own practice at the Children's Hospital both before and after my conversion (some of which I have recorded), and it leaves no room for doubt on the matter. Until reading Mr. Wightman's paper, indeed, I was under the impression that such was the general belief, and that the very small mortality from empyema in childhood nowadays, whether single or double, was commonly ascribed to improved treatment in this respect. It would be manifestly unfair to comment upon Mr. Wightman's twenty-nine fatal cases, or upon his statement that of seven cases of double empyema only one recovered; but it would be interesting to learn in how many or how few of these "the major operation" was performed. I have no wish to criticise, but when an authority upon the subject, as is Mr. Wightman, out of his wide experience at a children's hospital writes such a sentence as I have quoted the matter is of such grave importance that one feels constrained to ask, Is that really so?—I am, Sirs, your obedient servant,

Wimpole-street, W., May 6th, 1894. OCTAVIUS STURGES.

WILLIAM HUNTER AND THE MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—Your review of the elegant volume lately issued in memory of the brothers Hunter states that William Hunter succeeded Fothergill in the presidency of the Medical Society of London in 1781. This is not so. The society referred to, although founded in 1773, boasts neither of these names upon its roll of Presidents. Dr. John Fothergill died in 1780, being at the time President of the Medical Society of Physicians, a body founded about 1766, and which for many years issued volumes of "Medical Observations and Enquiries." It was, no doubt, to this office that William Hunter succeeded on the death of his friend Fothergill, whom he survived little over two years. I lately saw in Mr. Hunter Baillie's collection an interesting letter from Fothergill to William Hunter, couched in his usual quaint Quaker language and bearing evidence of their intimate friendship. I am, Sirs, yours truly,

Finsbury-square, E.C., May 7th, 1894. R. HINGSTON FOX.

*** Our correspondent is right; although in his admirable "Roll of the Royal College of Physicians"[1] Dr. Munk writes: "On the death of Dr. Fothergill, Dr. Hunter was unanimously elected president of the Medical Society of London."—ED. L.

"SOME AFFECTIONS OF THE VEINS OF THE UPPER EXTREMITIES."

To the Editors of THE LANCET.

SIRS,—With reference to Mr. Bennett's lecture on Varicose Veins in the Upper Extremity, I may mention the following facts of my own experience. For a day or two there was a dull pain felt in the left arm and at the back of the hand on flexing the fingers. This was followed by a slight attack of fever, nothing being apparent in the arm at the time. The next morning, however, the veins of the upper arm were found to be dilated and varicose. Below the bend of the elbow the superficial veins were slightly dilated only. The right arm was unaffected. The pain increased and was felt also in the axilla. A well-known hospital surgeon, who saw the arm, informed me that, in his experience, varicosity coming on so quickly and occurring in the upper arm was exceptional. I suggested excision, but he advised rest and the application of very warm water to the part. This treatment was carried out, moderate use of the arm not being avoided, and in a few days the varicosity entirely disappeared. No trouble has been experienced since then (several years ago). The only cause I am able to assign in this case was the habit of drawing the shirt-cuffs over the bend of the elbow without undoing the links, and as this was done several times during the day, when washing the hands, the part constricted was noticed to be painful before the attack came on. In proof that on bending the elbow-joint the tension was great is the fact that two or three pairs of links had been broken or bent. Why the left arm should have suffered instead of the right, I am unable to say.—I am, Sirs, yours truly,

HERBERT G. MACLEOD, M.B., M.C. Edin.,
May 8th, 1894. Surg.-Capt. (late), H.M. Medical Service.

CHICKEN-POX IN ADULTS.

To the Editors of THE LANCET.

SIRS,—In reference to this subject I have lately had under my care three sisters, all adults, suffering from typical varicella. The first case was not traceable to a definite source of infection, but the disease is prevalent in the district. The latter two cases arose exactly fourteen days after the onset of the first case, and were no doubt contracted from the sister. On the ground that infection of adults was so rare I had allowed the sisters to associate together. Two of the cases were severe, while in one the eruption was very slight. I have previously seen a severe case in a nursemaid. This experience tends to show that the usual text-book dicta on this subject need amendment.

I am, Sirs, yours faithfully,

H. GRABHAM LYS, M.D. Lond.

Bournemouth, May 2nd, 1894.

[1] Vol. ii., p. 268.

"A CASE OF BLADDER IN AN INGUINAL HERNIAL SAC."

To the Editors of THE LANCET.

SIRS,—Mr. F. A. Purcell has done well in publishing his instructive case in the pages of THE LANCET, but he will, I trust, forgive me for pointing out that this is not the first case of the kind, as he implies, published by an English surgeon. On p. 90 of vol. xxiii. (1890) of the Transactions of the Clinical Society of London, he will find recorded a case of mine where by supra-pubic cystotomy I removed two large calculi from a vesical sac, forming part of an inguinal tumour, which had been treated as an ordinary hernia. The patient was seventy-four years old and made a complete recovery. I am, Sirs, yours faithfully,

Wimpole-street, W., May 8th, 1894. G. BUCKSTON BROWNE.

LINEN AND WOOLLEN DRAPERS' INSTITUTION.

To the Editors of THE LANCET.

SIRS,—With very great surprise and regret I notice, in THE LANCET of April 28th, a letter under the heading, "Injudicious Governors," written by "One of the late Consultant Staff," reflecting in a most unmerited manner upon the recent action of my board of directors in appointing on the staff a specialist as honorary consulting surgeon, he being a gentleman who was recommended to my directors by one of its most liberal supporters, and they found him to be eminently qualified to hold the position which he has without any emolument undertaken in contra-distinction to his predecessors, who were paid for their services. As a matter of etiquette unobserved—viz., without consulting them, upon which the gentlemen who have resigned based the ground of their resignations—I most distinctly repudiate the assertion that any discourteous action was either taken or intended by my directors, and, therefore, the writer's remark that the appointment was made "after representations had been made by some of the consulting staff" could not possibly be true. Nevertheless the unexpected attitude assumed by one of the medical gentlemen who resigned left the directors no option but to act upon what undoubtedly was their legitimate prerogative in making such an appointment, and to accept with much regret the resignations of those gentlemen who demurred thereto, and of making new appointments under new conditions as decided by my board—viz., the appointment of an honorary consulting staff only, as is invariably the case with all benevolent institutions. It seems to me a great pity, and I am sure my directors will exceedingly regret it, that such animus, as shown by the letter referred to, should be manifested by one who confesses to a connexion of twenty-five years with the medical staff of our institution, and whose valuable services have always been recognised in the past in furtherance of a good work accomplished for the benefit of the trade represented.

I am, Sirs, yours truly,

JOHN W. STUTTLE, Secretary.

Finsbury-square, E.C., April 30th, 1894.

"BLOXHAM *VERSUS* THE MEDICAL DEFENCE UNION."

To the Editors of THE LANCET.

SIRS,—We cannot allow the inaccuracies contained in the letter appearing in THE LANCET of the 5th inst. and signed by "Edward C. Bousfield" to remain uncorrected. The letter implies—and is apparently intended to convey to your readers the erroneous impression—that the Lords Justices of Appeal pronounced judgment on the three distinct points which your correspondent enumerates—namely: "(1) That the action of the Council was *ultra vires* on the ground that, it being against natural justice to attack a man with his own money, the articles, as they did not expressly provide for it, must be construed as forbidding it; (2) that, as the Council disclosed no matter of professional conduct which would give them an interest in the case, they could not resist the imputation of maintenance; and (3) that, as the Council had only heard the *ex parte* statements of Dr. Collie before deciding to support him, there had not been due investigation as required by the articles of association.' As a fact

no judgment whatever was pronounced by the Lords Justices of Appeal. For the information of your readers it is perhaps well that we should state what are the real facts. They are as follows. On April 4th, 1894, at the opening of the court, the counsel representing the Medical Defence Union stated that, as their lordships appeared to be of the opinion that Mr. Bloxham should have been invited by the Council to state his own case before they resolved to defend Dr. Collie, he was prepared to accept that view, and therefore, on behalf of the Union, to consent to treat the motion as the trial of the action and to submit to an injunction. The judges approved of this course, and the action thus terminated; and, as we have said, their lordships pronounced no judgment whatever either on the points enumerated by your correspondent or upon any other. We may add that as a matter of fact Mr. Bloxham's counsel stated that he "*would have liked a decision* on the construction of the memorandum of association." Further comment on Mr. Bousfield's letter is unnecessary.

We are, Sirs, yours obediently,
HEMPSON and ELGAR,
Solicitors for the Medical Defence Union.

King-street, Cheapside, May 8th, 1894.

To the Editors of THE LANCET.

SIRS,—As Professor Horsley has done me the honour to question the accuracy of the statements in my letter inserted in THE LANCET of May 5th, will you allow me to say that, as regards the utterances of the Lords Justices, I have given the *ipissima verba?* As I stated expressly that the Council had submitted to judgment on the last point only, it seemed to me that there could be no mistake as to the scope and force of the judicial utterances, but, to prevent all misapprehension, I beg to substitute the word "stated" for "held," so that the passage will run: "the Court stated, &c." With this exception I have nothing to alter.

I am, Sirs, yours faithfully,
Old Kent-road, May 9th, 1894. EDWARD C. BOUSFIELD.

"THE HYDERABAD EXPERIMENTS AND THEIR TEACHING."

To the Editors of THE LANCET.

SIRS,—The "Indian Chloroformist" who apparently writes from Hyderabad, as he refers to that place as "here," fails to advance any evidence which has not been before the profession for some years now, and received the most careful study at the hands of surgeons, physiologists, and anæsthetists. It may be excusable for him to accuse anæsthetists as a body with ignorance of the literature of their peculiar study because he possibly may not be aware of the abundant and ever-increasing literature and daily teaching upon anæsthetics which are current in the teaching centres of Great Britain. I will follow his plan of dividing the consideration of his contentions into paragraphs.

1 and 2. Whatever may be the opinion of the "Indian Chloroformist" or of other individual anæsthetists, the work of the Hyderabad Commission has entirely failed to satisfy the English profession that chloroform in any clime cannot in certain doses affect the heart. Nor is this deliberate judgment without support from the physiological side. Quite independently of Professors Wood, Gaskell, McKendrick, and McWilliam, and of Dr. Shore, there is in English laboratories a grave doubt as to whether the physiological side of the Hyderabad Commission can be accepted as proving the position which the following of the late Professor Syme have assumed. As has been pointed out more than once, Professor Syme himself believed and taught that the heart failed under chloroform. It is regarded as puerile to suggest that a belief in the cardiac depressant action of chloroform renders a conscientious and skilled chloroformist a person who cannot watch with the utmost steadiness and precision the condition of a patient's respiration. So far from acquiescing in this assertion, it is common experience that many valuable lives, that would unquestionably have been sacrificed had respiration been watched alone, have been saved since regard was also had to the state of the circulation.

3. The claims advanced for the "unbroken and continuous record of chloroform administration without a death" of the late Professor Syme and of Surgeon-Lieutenant-Colonel Lawrie prove that chloroform can be given a very large number of times without a casualty, but prove nothing whatever about the action of that body upon the heart, which is the question under discussion. Again, a study of the cases which Surgeon-Lieutenant-Colonel Lawrie has published as an addendum to the Report of the Hyderabad Commission shows that by far the majority of these were of a very trifling nature, and could not be accepted as comparing with the often very severe operative procedures for which London chloroformists are called upon to produce and maintain anæsthesia. European chloroformists have to deal with cases which formerly would not be subjected to the ordeal of narcosis and have to make the best of the enhanced dangers enforced by a keener dread among surgeons of inflicting pain upon their patients. I see no reason for altering my view that the valuable research of the Hyderabad Commission does apply more particularly to the lower animals until evidence, which appears not to be forthcoming, can be advanced telling against our experience as anæsthetists in our practice.

4. The conclusion of this paragraph is of great importance. The "Indian Chloroformist" assumes, of course quite gratuitously, that when a chloroform death occurs under Syme's system of administration those rules were violated. I would, on the other hand, suggest that an "Indian Chloroformist" is absolutely wrong and disingenuous in making such an assumption. In repeatedly referring to the "unmatched clinical record" of Syme and Lawrie he is apparently not aware that neither of these surgeons habitually employed or employ chloroform for cases which would suggest peril from the anæsthetic.

5. I am said to have blundered as to the conclusions of the physiologists. I have, however, yet to learn in what my misapprehension lies. I quoted the names of various well-known physiologists who have repeatedly published their views upon chloroform in its relation to the heart. The "Indian Chloroformist" mentions McKendrick, Wood, McWilliam, Gaskell, and Shore. These gentlemen have in no uncertain manner stated that they do not accept the finding of the Hyderabad Commission and in some cases have repudiated the use made of their writings. I am asked to name one as a "paramount authority on heart failure under chloroform." In reply I must refer the "Indian Chloroformist" to the writings of the physiologists in question, for although approaching the question from different sides they each believe in the paralysing action exerted by chloroform upon the circulation. Certainly such experimenters are at least as capable of forming an accurate judging from their researches as are the members of the Hyderabad Commission. If this gentleman who writes from Hyderabad would give us, his brethren, some arguments other than from what threatens to become a fetish—the "Report of the Hyderabad Commission"—and would assist rather than darken counsel by studying his subject from a broader basis than he has at present attempted, there might be some chance of enlightenment.—I am, Sirs, your obedient servant,

"A LONDON ANÆSTHETIST."

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Professor Mitchell Banks.

ALLUSION was made in THE LANCET last week to the meritorious services of Mr. W. Mitchell Banks, who for twenty-five years has been connected with the Liverpool School of Medicine. It would be impossible to over-estimate the amount of work which he has done as a teacher of anatomy, as surgeon to the Royal Infirmary, and lecturer on clinical surgery, with its excellent results. It may be confidently expected that these will be acknowledged in some permanent and enduring form. Meanwhile, it has been no small reward for Mr. Mitchell Banks to see the expansion of the local School of Medicine from a comparatively small provincial school to the medical faculty of a college which in due time will rival even metropolitan schools.

The Recent Murder of a Police Constable at St. Helens.

The three men sentenced to death at the last assizes for the murder of a police-constable at St. Helens, but respited, have been each awarded fifteen years' penal servitude. All three, though comparatively young men, bore very bad characters. One aged twenty-two had been convicted thirty-six times for vagrancy, drunkenness, and larceny;

another aged thirty-two had been dealt with twenty times for drunkenness, vagrancy, and assaults on the police; while the third, only nineteen years old, has a record of eight convictions for drunkenness, assaults, and larceny. Though described as colliers they have done little work anywhere, and belong to the class of "corner men" who loaf about public-houses in the hope of getting "free drinks," assaulting those who are not ready to bestow them.

The May Assizes.

Mr. Justice Day has had the painful duty of passing another death sentence on a man for the murder of his paramour on the 3rd ult. As the jury recommended the murderer to mercy it is possible that the sentence may be commuted.

The City Police.

Captain Nott Bower, the City Head Constable, had the pleasing duty of presenting the Chairman of the Watch Committee at two successive meetings with a pair of white gloves in consequence of there not having been, for the space of fourteen days, a single charge against any member of the force of 1630 men. In receiving the gloves, the chairman said that the incident and the circumstances that led to it were very creditable to the force and satisfactory to the committee.

May 8th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Parks and Open Spaces.

THE above do not suggest themselves to the mind at the mention of Manchester, and it is only of late years that their importance from a sanitary point of view has been recognised by the corporation; but already a good deal has been done to provide these "lungs," as they have been called, which are so greatly needed in a large town population. Many of these open spaces are in densely crowded and poor districts—as Ancoats, Hulme, Rochdale-road, and Angel Meadow. They are made good use of by the children as playgrounds. At one end of St. Ann's-square, in the heart of the city, there is a town garden recently made; small, it is true, but looking wonderfully bright and refreshing. This exceptionally genial spring has been more than kind in the encouragement it has given to these attempts to brighten the aspect of our dingy surroundings. Before long a disused churchyard on the lower side of Deansgate will be planted and kept as an open space. The Southern Cemetery, in the outskirts of the town, just now is really a beautiful garden, comparing favourably with one of the old and disused cemeteries in the town itself, which in its desolation is depressing to a degree. Surely this might be made brighter, at all events, in the springtime. Some of the parks are of fair size: Queen's Park contains 30 acres, Phillips' Park a little over 31, Alexandra Park 60, Birch Fields 32, and Gorton 16 acres. The Southern Cemetery contains 97 acres and that adjoining Phillips' Park 40. The neighbouring borough of Salford has also several important open spaces, as Pul Park, with 37½ acres, Albert Park and Playground 18, Ordsall 14¾, Sudley 13, and Kirsal Moor 21½ acres, besides many small recreation grounds. In view of the rapid increase of our town populations the early provision of open spaces becomes one of the most important municipal duties.

Summer Camp for City Boys.

A most useful development of that valuable institution, the "Boys' Refuge," is the establishing of a camp at the seaside during the summer, "where the poorest lads of our city and neighbourhood have a week or a fortnight's holiday under canvas." This year it will be near Southport, and the first detachment of sixty or seventy boys is to go on the 12th inst. These boys "come recommended by ministers, city missionaries, district nurses, Sunday and ragged school teachers, and others." They have bathing and simple drill every day, take a little share of the work of the camp, with plenty of liberty for cricket, football, and games of all kinds, "returning home the very picture of health and strength." Last year 1122 boys were sent, and this year the managers wish to send at least 1300. "Six shillings provide a week's holiday for each lad," so there is not much room for extravagance, and it is to be hoped that the appeal for help in carrying out this most useful work will not be without response.

Sewage and the Ship Canal.

The importance of the subject may excuse a further reference to it. Both Manchester and Salford are becoming alive to its gravity. At the last meeting of the city council the chairman of the Rivers' Committee was asked as to the flow of Manchester sewage into the Ship Canal. His answer was that the sewage from 265,365 persons (rather more than half the population) "was treated at Davyhulme by a chemical process and the liquid treated was sent into the canal." "With regard to the other sewage, that was a matter now for the Paving Committee"; but the latter committee gave no information. It was stated further that "the foul condition of the canal water was due to the untreated sewage of 50 per cent. of the population going into it." This is not a pleasant subject for thought, whether the reference is to the population of Manchester or of the watershed of the Irwell. There has been but slow progress in the purification of their sewage by the local authorities, although orders have been obtained against twenty-two of them. The chairman concluded by saying that "the time for experiment had gone and prompt and energetic action was necessary." These are brave words if rather long delayed, and we must hope the promised action will bear them out. Salford is incommoded with its sewage sludge, and is asking the Local Government Board to sanction a loan of £12,000 for providing a steamship to take it down the Ship Canal and thirty miles out to sea. The annual cost is estimated at £3200, or rather less than fivepence a ton. It seems that the Salford effluent has been very unsatisfactory according to the analyses of Sir Henry Roscoe, and it was decided yesterday, at the meeting of the joint committee on Rivers' Pollution of the County Councils of Lancashire and Cheshire, to prosecute the corporation. It is understood that Her Majesty's excursion on the Ship Canal is to be much shorter than was originally intended, on account of the unsavoury condition of the water.

May 8th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Opening of Marle Hall, Llandudno.

AN interesting and important ceremony was performed on the 5th inst. in connexion with the Hospital Saturday movement, when Marle Hall, Llandudno, was opened by the Mayor of Birmingham, Alderman Johnson, amid much enthusiasm. The building is a convalescent home for women, and forms a charge upon the Hospital Saturday funds of about £1000 a year for maintenance; it is the parallel of Tyn y Coed, a similar institution for men, so generously given two years ago by the Misses Stokes in memory of their father. The present estate, beautifully situated in a healthy quarter, is admirably adapted to the object of giving health and strength to the recipients of this trust. As a new development it commends itself strongly as one of the best and most practicable modes of placing the greatest benefits obtainable within the reach of the artisan and working classes. As a supplement to the administration of the Hospital Saturday movement I may express the earnest hope that the experiment will be a success, and that after the lapse of the present lease of three years the institution will be established on a permanent foundation.

May 8th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Gas-Cooking Exhibition.

A GAS-COOKING EXHIBITION was opened in Newcastle last week by the sheriff of that town. The appliances were not for sale, as the sheriff explained, but to demonstrate what could be done in the way of cooking by gas. The afternoons were devoted to fancy cookery, confectionery, &c., and the evenings to everyday household cookery, baking, &c. There could be no doubt as to the advantages of cooking by these stoves as regards speed, cleanliness, and economy, for there is no dust or waste.

Langholm: The Hope Hospital.

The Hope trustees at Langholm have resolved to invite several architects to furnish plans of a hospital to be erected

at Langholm in memory of the late Mr. Hope, who left over £100,000 to build and endow such an institution. The building is not to be a very large one, but it is stipulated that it shall be of good architectural character, indicative of the objects of the trust, with the name of the donor inscribed on a suitable panel or tablet. The site has already been procured, and is situated at the north-west corner of the market place.

Whitby.

The health of Whitby and district has been in a very satisfactory state for some time past. The registrar's district contains a population of 16,336, and no death occurred between the 15th and 26th ult.—a period of eleven days.

St John Ambulance Association.

Dr. Tinley of Whitby has been the recipient of handsome presentations from the ladies' ambulance class.

Bishop Auckland Water-supply: Report by County Medical Officer.

Dr. T. Eustace Hill, in his report to the county council, says: "The disease most common, resulting from the consumption of polluted water, is enteric fever, and a comparison of the mortality from this disease shows that during the ten years 1881–90 the death-rate was twice as high for Bishop Auckland as for England and Wales, and while the death-rate from enteric fever has of late years very greatly diminished in England and Wales, the rate in Bishop Auckland has considerably increased, with the result that during the five years 1889–93 the death-rate from enteric fever for Bishop Auckland has been more than double the rate for the rest of the county of Durham, and four times as high as that for England and Wales." It should be noted, also, that with one exception the death-rate per 1000 inhabitants from enteric fever in Bishop Auckland during the last five years has been in excess of that of any other sanitary district in the county, and not without reason, as has been pointed out by Dr. Hill in a previous report. There can be no doubt that the river Wear, Bishop Auckland—receiving as it does above the intake of the present water-supply, (1) the raw sewage of nearly 10,000 persons, about a third of which enters the river within three miles of the intake; (2) the effluents of sewage farms, which receive the sewage of about 17,000 persons; and (3) the surface water from cultivated lands, a portion of which is manured with human excreta removed from midden privies—can neither be considered a desirable nor safe source of water-supply to the town.

Professor Oliver has been re-elected one of the physicians to the Newcastle Royal Infirmary for a further period of fifteen years.

Newcastle-upon-Tyne, May 9th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Public Health: Muzzling Order renewed.

THE death-rate in Glasgow in the past week was 22, as compared with 19, 18, and 23 in the previous three weeks. As the "muzzling order," issued three months ago, has now expired, the medical officer of health has again directed the attention of the health committee of the town council to the continued existence of rabies in dogs in the city, and to the facts that dogs suffering therefrom had bitten other dogs and, quite recently, had also attacked various persons; it has been agreed accordingly to reissue the proclamation of February last, and also to continue the powers then conferred on a committee, consisting of three councillors, acting in consultation with the medical officers of health, to consider the cases of persons bitten by mad dogs or dogs suspected to be mad, and, if thought proper by them, to pay the expenses of persons so bitten being taken to and treated at M. Pasteur's Institute in Paris.

New Sewage Works and Purification of the Clyde.

There has just been inaugurated in Glasgow the first portion of a system of sewage treatment which may fairly be said to be the most important municipal undertaking of the present generation. It is not so very long ago since the Clyde was noted for the immense number of salmon caught in its limpid waters, even at Glasgow, and many are still living who remember the "fisherman's hut" at Govan, at a spot now surrounded by the shipbuilding yards from which have issued so many warships and ocean liners. It must be admitted, however, that for many years the filthy, not to say poisonous, condition of the river, especially in the harbour and for some miles further down, has been a standing reproach to the city. Many town councils and several Lord Provosts have set themselves to the herculean task of river purification, but have shrunk back in dismay at its magnitude. As long ago as the year 1853 the corporation had asked the great engineer, Mr. Bateman, to investigate the matter and report; this he did, taking five years to do so; then in 1868 Mr. Bazalgette was associated with Mr. Bateman in the same task. Again in 1876 Sir John Hawkshaw reported on it. Investigations were further made by the corporation themselves in 1877, by Mr. Bateman in 1879, and by the council again in 1880, with the result that the city still shrank from the undertaking, which, according to the various schemes, was to cost from £1,000,000 to £2,500,000, and included the establishment of a conservancy board on the Clyde. Thus, after forty years of commissions, inquiries, reports, and so on, matters seemed to be almost at a standstill, when in 1888 help came from an unexpected quarter—from the Caledonian Railway Company. When that company proposed to run an underground line through part of the city in such a way as to intercept and disarrange the main sewers of the eastern district it was felt that an opportunity had arisen to make an experimental attempt to deal in a reasonable way with about a fifth portion of the city sewage—that is, by precipitation and classification—and not simply, as in the earlier schemes propounded, by conveying the nuisance from one's own doors and pouring it out further down the river at the doors of others. The opportunity has been seized, and now we have extensive sewage precipitation works in operation on the very site (by a strange coincidence) of the old waterworks which supplied Glasgow with Clyde water before the introduction of the Loch Katrine supply. The eastern district—the drainage of which alone is meanwhile dealt with—has an area of about 2600 acres, covered by a population of 270,000 people. Its sewers have been readjusted, both in lines and levels, at a cost of £200,000, borne by the Caledonian Railway Company. The average quantity of liquid sewage discharged by Glasgow is 50,000,000 gallons daily, so that this new sewage district gives about 10,000,000 gallons to be dealt with in each day of twenty-four hours. The ground bought by the corporation for these works extends to twenty-nine acres, nine only of which are covered by the new buildings; and as the works already in operation can be extended so as to deal with double the above-mentioned quantity of sewage, and as there is ample room for their extension, the inclusion of the northern district of the city, which should take place in about a year, will be a matter of no difficulty. The ground cost £38,000, and the buildings, machinery, tanks, &c., £62,000, so that the city enters on the new scheme at an initial cost of only about £100,000. The system of sewage treatment adopted is that of Mr. G. V. Alsing, C.E., who designed the works at Bradford and Sheffield, and under whose personal supervision the whole machinery and plant have been erected in Glasgow. In the Glasgow works, which are now the largest and most complete of the kind in the kingdom, Mr. Alsing has introduced many important improvements in the manner of dealing with the sewage. Before entering the sewage works the main sewers are intercepted by a junction with the outfall sewer, a by-pass being provided to allow storm-water to run direct to the river. The sewage is first run through rotary screens, which take up any floating matters, and then passes underneath the main building to large "catch-pits," depositing the heavy matter by its own gravity. These heavy deposits are moved forward by screw-conveyers working in V-shaped grooves and lifted by elevators to above the floor level, where they are emptied into railway waggons and despatched as manure. From the "catch-pits" the sewage runs into a well below the floor of the pump-room. Here there are four centrifugal steam pumps by which the sewage is raised into an iron main-delivery pipe, and flows forward into what is called the "mixing chamber," where it receives the chemicals (at present sulphate of alumina and lime) for precipitating the impure matters. It then passes through feed channels into the outer tanks, where the precipitation takes place, and while the purified liquid, after having been aerated, runs towards the filters the precipitated matter or sludge returns to the main building and is lifted into the sludge mixers, where a small quantity of lime is added to facilitate the pressing. By its own gravity the sludge runs into four

rams, from which it is forced into presses by compressed air. After the water has been reduced from 95 to 50 per cent. the sludge falls in cakes direct into railway waggons and is removed to farms belonging to the corporation. The water which has been expelled flows back to be repurified. The sludge may also, if desired, be mixed with street refuse from a loading bank alongside the rails. On leaving the mixing pit the sewage proceeds to the precipitation tanks outside. These are twenty-four in number, arranged in two rows, each tank holding 80,000 gallons. During the day each tank is filled in rotation. In these reservoirs the sewage is kept in total quiescence until the process of precipitation is complete. The work of separation having been effected, the fluid on the top is emitted through self-floating automatic valves, the invention of Mr. Alsing, and runs in thin sheets over the stepped bottoms of the aeration beds, which correspond in number with the precipitation chambers. The sludge returns by underground channels to the main building to be pressed. The day treatment is effected on the intermittent system, the precipitation taking place while the sewage is at rest for about an hour; but during the night, when there is much less water, the sewage, mixed with the chemicals, runs through the precipitation tanks from one end to the other on the continuous system. The liquid from the aeration beds flows by a joint central channel into the filter tanks. The tanks here number sixty; twenty are filled with gas coke, through which the liquid passes previously to filtering through the remaining forty, which are filled with gravel and sand from Arran. The effluent, after filtration, is discharged into the river in a pure state from a sanitary point of view. It is perfectly clarified by the process and is described as tasting like rain water. It looks like rain water also, being only two and a half times darker than Loch Katrine water. Both the sludge and the effluent are destitute of smell. It may have been imagined that the sewage works and the processes carried on there would prove to be a nuisance, but such is not the case. From the time that the sewage receives its mixture of sulphate of alumina and lime there is no offensive smell. At the opening ceremony, which took place last week, though the works had been in full and satisfactory operation about a fortnight earlier, Lord Provost Bell touched upon a very important aspect of this scheme in pointing out, in the first place, that Glasgow was not the only sinner on the Clyde as regarded river pollution, every town and village and every coal-pit and factory on the river and its tributaries adding its share to the general nuisance; now, however, that Glasgow had shown the way, it might with a good grace insist on similar measures on the part of its neighbours. In particular the burghs to the westward of the city, having a separate official existence, but being in actual fact continuous with and part and parcel of the city, would have to join with Glasgow in extending the scheme; already, in fact, the corporation had been gradually taking all the drains in the western districts to one common point to enable them to take the whole of the west-end sewage, on the north side of the river, to Dalmuir, where the city had an estate of 277 acres, purchased in 1877 for this purpose. The second matter discussed by Lord Provost Bell was the relation of manufactories, collieries, dye works, tanneries, &c., to the city under the sewage system now adopted. The question now arises whether the whole city of Glasgow is to continue to subsidise those manufacturers by allowing them to pour all their spent products into the drains originally prepared for sewage. In the eastern district now dealt with, the worst in the city as regards factory pollution, it will cost the city twice as much to treat the sewage as it would to treat that from a purely domestic locality. The corporation will probably ask for Parliamentary powers enabling them to face this difficulty. That there is here some real ground of complaint, even from a sanitary point of view, receives curious confirmation in the report of the proceedings of the Health Committee on the 30th ult., in which reference is made to the annoying prevalence of most offensive smells emanating from the sewers in the north-western districts; this has been going on for years and is known to be due to the discharge of noxious chemical materials into the sewers. Unfortunately it is not exactly easy to discover the real culprits.

Uninhabitable Houses.

At a recent meeting of the special committee of the town council appointed to carry out the provisions of the section of the Glasgow Police (Amendment) Act, 1890, in regard to unwholesome houses a large number of houses in the east end of the city were condemned as uninhabitable. With reference to one block the medical officer of health states that in the last five years the death-rate among the tenants was 58 per 1000, and that in one year the death-rate of children was 26 per 1000 of the children born. In the whole city during these five years the general death-rate was 24 per 1000, and the death-rate of children 15 per 1000.

Presentation to a Medical Man.

The members of the ambulance class at Auchinleck met in the town-hall on Tuesday evening and presented Mr. Andrew with two cases of surgical instruments as a token of their appreciation of his instruction.

May 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Adelaide Hospital, Dublin.

THE late Mrs. Fuller left £1000 to this institution for the endowment of one or more beds in a ward therein to be named the "Mary Anne Fuller Beds." The dividends accruing from this sum of £1000 can be used, but the principal must be left intact.

Queen's College, Cork.

Last week a notice, signed by the registrar, was posted in the College, stating that an extraordinary visitation will be held at the College on the 16th inst. for the purpose of inquiring into an appeal lodged against certain acts and decisions of Mr. Slattery, President of the College, by the following professors and members of the council:—viz., Professors Jack, Oryan, Hartog, Corby, Ridgeway, and Stokes. Counsel have already been engaged for the inquiry.

Vaccination: South Dublin Union.

On the 26th ult. the guardians of the South Dublin Union resolved that the prosecution pending against Mr. William Glynn, Rathmines, for non-compliance with the Vaccination Acts, be withdrawn until the Royal Commission appointed to inquire into the working of these Acts issues its report. This ill-considered resolution was much commented upon, and the subject attracted the notice of the Local Government Board, who communicated with the guardians in reference to the matter. They pointed out that the evidence as to the protection afforded by vaccination against death, or blindness, or disfigurement arising from small-pox was, to the vast majority of persons who have studied the subject, simply overwhelming; and that in the case of any individual infant the question the guardians had to consider was whether the scruples of the parent, or the future welfare of the child deserve the greatest consideration. The board were also of opinion that until further legislation takes place the Compulsory Vaccination Acts remained in force, and that speculations as to the character which the report of the Royal Commission on Vaccination may ultimately assume had no practical bearing upon the powers the guardians, possessed under the existing law. The guardians, having read the communication from the Local Government Board, adopted a resolution that the prosecution be proceeded with against Mr. Glynn for non-compliance with the Vaccination Acts.

May 8th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Paris Water-supply.

A WEEK ago the inhabitants of Paris had their sense of sanitary security disturbed by the appearance on every coign of vantage of huge posters stating that, in consequence of an accident to the Vanne aqueduct, Seine water would be distributed for some days, dating from May 2nd, to all the districts of the town, excepting the eighth (Champs-Élysées and Monceau), sixteenth (Passy), seventeenth (Batignolles), eighteenth (Montmartre), nineteenth (Belleville), and twentieth (Menilmontant) *arrondissements*. In another week or fortnight we shall see if the supply of this microbe-laden liquid has borne its usual fruit—viz., an increased prevalence of typhoid fever. Fortunately for those of our countrymen who crowd to Paris at this time of year the quarters frequented by them have been spared this

infliction; but, as I have more than once pointed out in these columns, tourists do not limit their explorations to the neighbourhood of their hotel, and it behoves them to keep themselves informed of the doings of the *service des eaux*, ignorance of which might cost them dear. I would counsel them to inquire on this point at a good English druggist's before they visit a strange district in Paris.

An Artificial Windpipe.

M. Péan presented to his colleagues of the Academy of Medicine on the 1st inst. a woman whose thyroid gland he had removed in 1890 for simple hypertrophy. The tumour, unfortunately, reappeared soon afterwards in a malignant form, and its ablation sixteen months ago necessitated the removal of the cricoid cartilage and the five upper rings of the trachea. Recovery has since been maintained, but the extent of the tracheo-laryngeal wound has not allowed of the recovery of phonation. An artificial windpipe, constructed by M. Kraus, is now worn by the patient, who can speak sufficiently distinctly to make herself understood.

The Cause of the Mal de Montagne experimentally determined.

M. Regnard[1] reminds us that it is proposed to bore a tunnel or chimney extending from the base to the summit of the Jungfrau. In this chimney, whose height will be 4000 metres, it is intended to instal a lift destined to convey passengers to the top of the mountain; but sinister warnings of the dreaded *mal de montagne*, which, it is said, will surely make the tourist repent his temerity, have brought the project to a standstill. Struck by the fact that this malaise affects mountain climbers at an elevation of about 3000 metres, while aeronauts only suffer when they have reached double that height, M. Regnard concludes that the difference is explained by the factor, muscular fatigue, which is present in the first and absent in the second case. In order to solve the problem he places under a bell jar two guinea-pigs equally developed, of whom one has to work a wheel (the climber) while the other is at rest (the aeronaut.) The air of the bell jar is then progressively exhausted so as to reproduce the atmospheric conditions obtaining at different heights. At a pressure equivalent to 3000 metres the climbing guinea-pig showed signs of distress, and at 4800 metres he renounced the struggle and remained lying on his back. The aeronautic guinea-pig, on the other hand, appeared quite comfortable up to an elevation of 6000 metres, and his condition became serious only at a height of 8000 metres. This experiment appears to prove that, although some of the symptoms of the *mal de montagne* are doubtless due to the rarefaction of the air, the chief determining cause is fatigue and the resulting exaggerated consumption of oxygen. M. Regnard opines that tourists who venture on the Jungfrau lift expedition will reach the top in good condition. Should this prognostication be true it constitutes one more proof of the usefulness to speculators of the much maligned experiments conducted in the physiological laboratory. Rabid anti-vivisectionists cannot now, however, logically avail themselves of the above-mentioned mode of transit to the top of the Jungfrau.

May 8th.

[1] Soc. de Biologie, April 28th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

Otago Medical School.

AT a meeting of the Senate of the New Zealand University, held on March 8th, the committee recommended the following medical examiners for the November examination, 1894, and the April examination, 1895:—Pathology: Drs. W. S Roberts and Albert Martin. Surgery: Drs. W. Brown and W. E. Collins. Medicine: Drs. Colquhoun and W. Fell. Midwifery and Diseases of Women: Drs. Batchelor and B. Moorhouse. The committee have had under their consideration the report which I have already referred to in these columns as adopted by the Wellington branch of the New Zealand Medical Association, in which it is stated "that the time has not yet arrived when medical degrees may with advantage be granted in the colony." In reply to this the Senate's committee have reported that there is no evidence to show that the views expressed by the Wellington branch are entertained by the profession generally in the colony. The committee go on to report that "large improvements have recently taken place in the hospital and that a system of nursing has been established which brings the administration of the wards to a point of efficiency which leaves little to be desired." A new operating theatre has been built, and altogether the sum of about £8000 has been expended on improvements generally. There has been a daily average of fully 100 patients in the hospital, and 300 operations have been performed, fully 200 of which have been of a major nature. In the out-patient department 1500 new cases were treated. It appears further that the Benevolent Asylum, with over 200 inmates and a lying-in ward, and Seacliff Asylum, with over 500 inmates, are available for clinical purposes. The committee go on to state that a great deal of evidence as to the adequacy of the material available for the purposes of a school of medicine has been brought under their notice. The statements of gentlemen who have taken their degrees in this university and then proceeded to Great Britain are to the effect that their course of instruction here enabled them to obtain the corresponding qualifications granted by the Royal Colleges of Surgeons and Physicians of England, the examinations in London being of the same standard and conducted for the most part in the same manner. At the present time 5 per cent. of the profession in New Zealand have obtained their qualifications in the first instance from this university, and a good proportion of these have been enabled to go home and apply themselves for a time more advantageously to special branches of study, and, as far as the committee could learn, are occupying no secondary position in the ranks of the profession. The graduates are considered to have a preferential claim to hospital appointments and thus a further means of acquiring a fuller knowledge of their profession is obtained. The Hon. W. Rolleston, in moving the adoption of the report, stated "that the committee had taken a great deal of evidence and pains in investigating the statements made by the Wellington branch of the Medical Association." He was quite willing to believe, with regard to those gentlemen, that their zeal for the honour of their profession was not equalled by their knowledge of the facts of the case, and he thought the Senate must be prepared to give them credit for good motives in what they stated, but he must say that their case had entirely broken down. He looked upon the Otago School of Medicine not as an Otago institution but as a colonial institution, and as the centre in New Zealand of this branch of higher education. Sir Robert Stout, in seconding the adoption of the report, severely criticised the representations made by the Wellington branch of the Medical Association, and in doing so remarked: "Let our young people visit other places to expand their minds and gain wider experience, but we must arrange so that for all things necessary we are independent of outside help. If we are to have a national life in New Zealand we must train our sons and daughters to do everything necessary for that national life." The motion for the adoption of the report was then put and carried. I maintain that this report does not finally settle this most important question, and as the mail leaves the question is being further discussed at the annual meeting of the New Zealand Medical Association held this year at Napier.

Obituary.

CHARLES GIBSON, M.D. ST. AND., M.D. DURH., M.R.C.S. ENG., L.S.A.

DR. CHARLES GIBSON, one of the oldest practitioners in the north of England, died at his residence in Newcastle on Saturday, April 21st, aged seventy-four. He was apprenticed to Mr. Carr, a medical practitioner at Newcastle, in 1835, and three years later entered as a student at the Newcastle Infirmary and at the Newcastle School of Medicine and Surgery. In 1842 he obtained the diploma of the Royal College of Surgeons of England, and graduated M.D. at St. Andrews University in the year 1851. For three years he held the post of lecturer in anatomical demonstrations and dissections in the Newcastle School of Medicine, and on the formation of the new medical college, of which he was a founder, was appointed lecturer on midwifery and diseases of women and children; the University of Durham recognising his services to this college by conferring upon him the degree of M.D. in 1859. The deceased gentleman took a prominent part in the establishment of the Newcastle Hospital for Women and

was the writer of several contributions to medical literature. His family have been represented in the learned professions for many generations, and it is worthy of note that a physician-general to the army in the time of Cromwell was an ancestor of Dr. Gibson.

WILLIAM EDDOWES, M.R.C.S. ENG., L.S.A.

THE death of Mr. Eddowes occurred at Pontesbury, Shropshire, on the 17th ult. He was in his eighty-third year and up to quite recently had enjoyed exceptionally good health. The end came suddenly and painlessly from cardiac failure. He was a student of University College Medical School, and qualified in 1835. In 1877 he retired from practice. He was well known for his energy and devotion to his profession, and also for the active part he took in all public matters in his neighbourhood. He held the post of medical officer of the Pontesbury district of the Atcham Union from the date of its foundation until his retirement—a period of forty-one years. Upon his retirement the board of guardians unanimously voted him a superannuation allowance of £50 a year "as a recognition of special efficiency, attention to the poor, and the lengthened service of forty-one years." In a leading article in THE LANCET of Sept. 1st, 1877, we congratulated him on having so done his work as to have earned not only his superannuation allowance, but the words of praise which composed the resolution. He received a very handsome testimonial from his friends in that neighbourhood. For many years he was coroner for the Ford district of Shropshire. He leaves two sons in the profession.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the First Examination of the Board under the "five years" regulations in the subjects indicated:—

Part IV., Elementary Anatomy:—

Adams, Harold Cotterell, Middlesex Hospital.
Ainscow, James, Owens College, Manchester.
Ainsworth, Ralph Bignell, St. George's Hospital.
Alexander, Kenneth Bush, Guy's Hospital.
Allport, Roland Harrison, St. Thomas's Hospital.
Alltree, George William, King's College, London.
Andrew, Edwyn Gaved, Guy's Hospital.
Bates, Llewelyn Arnold, St. Bartholomew's Hospital.
Baker, William Langworthy, Guy's Hospital.
Barham, Percy Cornelius, St. Bartholomew's Hospital.
Barnes, Frank, Mason's College, Birmingham.
Barnes, John Alfred, St. Thomas's Hospital.
Barrett, Edmund Howard, St. Mary's Hospital.
Barron, Robert Macpherson, Guy's Hospital.
Barrow, Harold Percy Waller, Guy's Hospital.
Barwell, Francis Reignagle, University College, London.
Barwell, Harry Shuttleworth, St. George's Hospital.
Batchelor, Henry Charles, Guy's Hospital.
Bawtree, Frank, St. Thomas's Hospital.
Bayly, Francis Stephen Goodenough, St. Thomas's Hospital.
Beasley, Joseph Howard, Mason's College, Birmingham.
Beley, Stanley, St. Thomas's Hospital.
Bellilous, David, St. Mary's Hospital.
Bennett, William Fay, St. Bartholomew's Hospital.
Bensley, Vernon Cyril, St. Mary's Hospital.
Bent, Vincent Thomas Clare, Guy's Hospital.
Bentley, Saville, Firth College, Sheffield.
Berncastle, Herbert Melbourne, Guy's Hospital.
Berry, Frederic Lingen, St. Bartholomew's Hospital.
Berry, Thomas Percival, Guy's Hospital.
Berryman, Edmund Newton, St. Bartholomew's Hospital.
Beyer, Ernest Fritz Bertram, Owens College, Manchester.
Bingham, Frank Miller, St. Thomas's Hospital.
Bingham, Sydney Oliphant, St. Thomas's Hospital.
Bourke, Isodore McWilliam, St. George's Hospital.
Boyle, William Francis, Mason's College, Birmingham.
Bradley, John, Mason's College, Birmingham.
Brind, Alfred Michel, Mason's College, Birmingham.
Briscoe, John Charlton, King's College, London.
Brooks, Frederick Richard, St. Bartholomew's Hospital.
Brown, Charles Harold Seguier, St. Thomas's Hospital.
Brown, Evelyn Kempson, London Hospital.
Browne, Edward Wemyss, St. Thomas's Hospital.
Brownrigg, Joseph, University College, Liverpool.
Bryan Haynes, Robert, St. Thomas's Hospital.
Burd, Cyril Prichard, St. Bartholomew's Hospital.
Caley, Malcolm Clement, St. Mary's Hospital.
Campbell, George Gunning, St. Bartholomew's Hospital.
Cardwell, Albert Edwin, London Hospital.
Carr, Henry Brookes, Firth College, Sheffield.
Cazaby, William Henry, St. Bartholomew's Hospital.
Chaplin, Clement Woodthorpe, London Hospital.
Chapman, Charles Leopold Granville, Guy's Hospital.
Churton, John Gaitzkol, University College, Liverpool.
Coltart, Guy Hemming, Westminster Hospital.
Coltart, Wilfrid Henry, Mason's College, Birmingham.
Colyer, Stanley William Randolph, Charing Cross Hospital.
Court, Edward Percy, St. Bartholomew's Hospital.
Cox, Franklin, University College, Bristol.
Cox, William Alfred Clayton, St. Mary's Hospital.
Crawford, Vincent James, Guy's Hospital.
Cuddon-Fletcher, Angus J. McNab, St. Bartholomew's Hospital.
Cullen, James Alfred Patrick, London Hospital.
Cuming, Richard Ingram, St. Thomas's Hospital.
Cunningham, Herbert Hugh Blair, St. Mary's Hospital.
Curtis, Arthur William Statter, Yorkshire College, Leeds.
Dalebrook, John, St. Bartholomew's Hospital.
Daly, Lionel Sills, Middlesex Hospital.
Dawe, Frank Sherwill, St. Mary's Hospital.
Dawson, Thomas Denman, St. Bartholomew's Hospital.
Deakin, Frank Newstead, Mason's College, Birmingham.
De Pavillet, Leonard John Lewis, St. Mary's Hospital.
Dewick, George, St. Thomas's Hospital.
Dixon, Montague, University College, London.
Dixon, Robert Halstead, St. Mary's Hospital.
Douglas, Kenneth Harrington, London Hospital.
Drake-Brockman, Ralph Evelyn, St. George's Hospital.
Driscoll, Louis Cornelius, Charing-cross Hospital.
Driver, Henry Lloyd, St. George's Hospital.
Dudley, Edward Percy Hughes, St. Bartholomew's Hospital.
Dupigny, Joseph Elford, Guy's Hospital.
Durbridge, Henry, Guy's Hospital.
Dyer, Harold, St. Mary's Hospital.
Dyson, John Newton, Guy's Hospital.
Eason, Herbert Lightfoot, Guy's Hospital.
Eastment, Gerald Meade, Middlesex Hospital.
Edgelow, George William Hennen, London Hospital.
Edwards, Henry Herbert Johnson, St. Thomas's Hospital.
Ellery, Richard Frank, St. Bartholomew's Hospital.
Ellis, Ernest Fitzgerald, University College Hospital.
Evans, Arthur Robert, University College of South Wales, Cardiff.
Evans, Edward Alban, Guy's Hospital.
Everington, Herbert Devas, St. Bartholomew's Hospital.
Fairbank, Harold Arthur Thomas, Charing-cross Hospital.
Farmer, Edward Patrick, Mason's College, Birmingham.
Fawcett, Thomas Albert Edward, Yorkshire College, Leeds.
Featherstone, Frank Reginald, Guy's Hospital.
Fell, Matthew Henry Greyson, St. Bartholomew's Hospital.
Fenn, Charles Edward, King's College, London.
Ferris, William, St. Mary's Hospital.
Fisher, Herbert Wortley, London Hospital.
Forster, Frederick Cecil, St. Mary's Hospital.
Fowke, William Cecil, Guy's Hospital.
Fox, Herewald Evelyn Croker, Guy's Hospital.
Francis, Arthur Edward, University College, London.
Frankling, Herbert George, London Hospital.
Fuller, Lawrence Otway, University College, London.
Galloway, William Heardfeld, Yorkshire College, Leeds.
Gardiner, Alexander Stoker, St. Mary's Hospital.
Gardner, John, Firth College, Sheffield.
Gask, George Ernest, St. Bartholomew's Hospital.
Gates, Edward Alfred, St. Thomas's Hospital.
Gibbins, Herbert Bowly, St. Bartholomew's Hospital.
Goddard, Eugene Gilbert, Guy's Hospital.
Goodbody, Cecil Maurice, St. Thomas's Hospital.
Graham, Allan Gordon, St. Thomas's Hospital.
Graham, Edward Septimus, St. Mary's Hospital.
Groube, George Patrick Thomson, St. Mary's Hospital.
Gwynn, Herbert Victor, St. Bartholomew's Hospital.
Hadley, Frederick Augustus, King's College, London.
Hakansson, Lorentz Wilhelm, St. Mary's Hospital.
Hall, Richard Charles Baker, Mason's College, Birmingham.
Hamerton, Albert Ernest, Yorkshire College, Leeds.
Hammerton, George Herbert Leonard, Firth College, Sheffield.
Hammond, Charles Arthur, St. Mary's Hospital.
Hanbury, Saville Waldron, St. Thomas's Hospital.
Harness, Henri Nilson, King's College, London.
Harris, Robert James, St. Thomas's Hospital.
Harvey, John Owen, Mason's College, Birmingham.
Hearn, Richard Surke Flemyng, St. Bartholomew's Hospital.
Henshaw, William Alfred, Mason's College, Birmingham.
Herbert, George Heywood, London Hospital.
Hewlett, Cyril James, Guy's Hospital.
Hoban, Thomas, St. Thomas's Hospital.
Hopkins, William George, St. Mary's Hospital.
Horridge, Frank, St. Bartholomew's Hospital.
Howells, Jenkins, Guy's Hospital.
Howlett, Bernard Featherstone, St. Thomas's Hospital.
Hutchinson, George Arnold, St. Mary's Hospital.
Illius, Henry Warwick, St. Bartholomew's Hospital.
Illius, John Warwick, St. Bartholomew's Hospital.
Johnson, William, Guy's Hospital.
Jones, Thomas, Middlesex Hospital.
Jones, William Edmund, Owens College, Manchester.
Kay, Alfred Reginald, St. Bartholomew's Hospital.
Kirkconnel, Edward Birchall, Owens College, Manchester.
Kirkman, Albert Henry Beaumont, Guy's Hospital.
Lambert, Ernest Charles, Westminster Hospital.
Lankester, Ralph Albert Rogers, University College, London.
Leah, Thomas, St. Mary's Hospital.
Leaning, Robert Craske, St. Mary's Hospital.
Lee, Charles, Firth College, Sheffield.
Lewis, Arthur Cedric, Guy's Hospital.
Lewis, Arthur Daniel, Guy's Hospital.
Lewis, Frank Charles, St. Mary's Hospital.
Liddell, William Henry Singer, St. Mary's Hospital.
Lightfoot, John Henry, St. Mary's Hospital.
Lindop, Llewellyn, St. Mary's Hospital.
Lister, Walter, Yorkshire College, Leeds.
Lloyd, Hugh Edward Drummond, St. George's Hospital.
Lobb, Hubert Peché, St. Bartholomew's Hospital.

Long, William Christopher, St. Bartholomew's Hospital.
Longbotham, Jonathan Harry, Yorkshire College, Leeds.
Longhurst, Ernest Archibald, Guy's Hospital.
Lowndes, Douglas Victor, London Hospital.
Lucas, Stanley Arthur, St. Thomas's Hospital.
McClean, John Francis, St. Thomas's Hospital.
McGavin, Lawrie Hugh, Guy's Hospital.
Macintosh, Archibald Malcolm, St. Mary's Hospital.
Mann, Henry Thomas, St. Mary's Hospital.
Marriott, Oswald, Guy's Hospital.
Martin, Francis John Hensley, Guy's Hospital.
Martin-Leake, Arthur, University College, London.
Mason, Samuel, St. Bartholomew's Hospital.
Mayhew, Christopher John, King's College.
Michell, Ralph, Guy's Hospital.
Middleton, Percy Ellwand, Yorkshire College, Leeds.
Millen, Seymour Alfred, St. Bartholomew's Hospital.
Miller, Arthur Alan, Guy's Hospital.
Milner, Norton, Firth College, Sheffield.
Milton, William Tayler, Guy's Hospital.
Moorshead, Robert Fletcher, University College, Bristol.
Morris, Frank Mayo, London Hospital.
Morris, Isaac Llewelyn, St. Bartholomew's Hospital.
Morris, John Ignatius Worgan, St. Mary's Hospital.
Morton, James Robert, London Hospital.
Mounsey, Ridley Ewart, St. George's Hospital.
Mowle, Richard Rothwell, King's College, London.
Mules, John Howard, Guy's Hospital.
Mussellwhite, William, Guy's Hospital.
Newham, Hugh Basil Greaves, St. Thomas's Hospital.
Newton, Courtenay Howard, St. Thomas's Hospital.
Nicholl, Ernest Edward, St. Thomas's Hospital.
Norman, Ralph, London Hospital.
Norris, Hugh Leigh, St. Thomas's Hospital.
Nourse, Arthur William, Guy's Hospital.
O'Dowd, John Austin, Mason's College, Birmingham.
Orton, Lionel Edward, Mason's College, Birmingham.
Outred, Charles Deane, Guy's Hospital.
Overton, Reginald Frederick Noyes, St. Mary's Hospital.
Oxley, James Charles Stewart, St. Thomas's Hospital.
Paddoch, Thomas Danby, Firth College, Liverpool.
Parkinson, Harold Raby, Owens College, Manchester.
Parsons, Arthur Ruscombe Crane, King's College, London.
Patch, Burnet Graham, St. Thomas's Hospital.
Pearse, Edward Mountjoy, University College, Bristol.
Pearson, Roland Wilfred, Owen's College, Manchester.
Pennington, Septimus Benjamin Adolphus Cullen Carter, Guy's Hospital.
Penny, Robert Augustus Greenwood, St. George's Hospital.
Pern, Norman, St. Thomas's Hospital.
Phillips, James, University College, Bristol.
Pierce, Robert Wynne Charles, St. Thomas's Hospital.
Pocock, Arthur Robert George, University College, London.
Pope, Francis, Mason's College, Birmingham.
Porter, William George, Charing-cross Hospital.
Powell, John Edward, Guy's Hospital.
Pritchard, Sydney Clifford, King's College, London.
Pritchett, George William Morris, University College, London.
Purkis, Dennis Woodley, St. Bartholomew's Hospital.
Raines, Robert, St. Bartholomew's Hospital.
Read, Arthur, Guy's Hospital.
Reid, Alfred, Guy's Hospital.
Rhodes, James Herbert, St. Bartholomew's Hospital.
Rhodes, Thomas Basil, Mason's College, Birmingham.
Richardson, Irwin Browne, Mason's College, Birmingham.
Richardson, Walter Silverwood, Guy's Hospital.
Roberts, George Augustus, King's College, London.
Roberts, William Edward Bee, Mason's College, Birmingham.
Rose, Edmund Frederick, St. Bartholomew's Hospital.
Row, Charles Martin, University College, London.
Row, Edward Reginald, Guy's Hospital.
Rowe, William Trethowan, St. Bartholomew's Hospital.
Rowland, Penry William, St. Bartholomew's Hospital.
Ruzzak, Shaik Abdur, Guy's Hospital.
Samuel, David, St. Mary's Hospital.
Sanders, Basil Stanley, University College of South Wales, Cardiff.
Saunders, Leonard Dimock, King's College, London.
Saward, Arthur Henry Michael, Guy's Hospital.
Sawdy, Edward Charles, St. Mary's Hospital.
Scott, Henry Harold, St. Thomas's Hospital.
Sheldon, Walter Sirr, University College, London.
Shenton, Edward Warren Hine, Guy's Hospital.
Shepherd, Cyril, Guy's Hospital.
Sheppard, Francis Williams, St. Bartholomew's Hospital.
Shoosmith, Louis Stephen, St. Mary's Hospital.
Singer, Harold Douglas, St. Thomas's Hospital.
Smallwood, George Valentine, Mason's College, Birmingham.
Smith, Edward Protheroe, Middlesex Hospital.
Southam, Percy, Mason's College, Birmingham.
Spencer, George Herbert, London Hospital.
Storrs, Reginald, St. Bartholomew's Hospital.
Straton, Charles Henry, St. Mary's Hospital.
Sturdy, Harry Carlile, Guy's Hospital.
Swindale, John Aston, Mason's College, Birmingham.
Tatchell, Percy, St. Bartholomew's Hospital.
Taunton, John Godfrey Cresswell, Mason's College, Birmingham.
Tayler, George Padgett, St. Bartholomew's Hospital.
Tedman, Arthur, University College, Bristol.
Telling, Walter Henry Maxwell, Guy's Hospital.
Thomas, Arthur Richard, Guy's Hospital.
Thomas, Hugh Mortimer, University College, Bristol.
Thomson, Charles Bertram, Guy's Hospital.
Thursfield, James Hugh, St. Bartholomew's Hospital.
Tripp, Basil Herbert Howard, St. Mary's Hospital.
Tripp, Walter John Pearce, University College, Bristol.
Turner, Charles Ernest, University College, London.
Turner, Philip, Guy's Hospital.
Tuxford, Arthur Wren, St. Mary's Hospital.
Utting, Horace Ebbage, Mason's College, Birmingham.
Walker, Frederick Edward, Guy's Hospital.
Walker, Thomas Malcolm, Guy's Hospital.
Waller, Herbert Ewan, St. Bartholomew's Hospital.
Watson, Arthur John, St. Mary's Hospital.
Watson, Charles Gordon, St. Bartholomew's Hospital.
Watts, Robert, Firth College, Sheffield.
Webster, Harold George, University College, Liverpool.
Westlake, Bernard Beaumont, Guy's Hospital.
Whitehead, Arthur Ernest, Firth College, Sheffield.
Williams, Gwilm Went Steuart, St. Bartholomew's Hospital.
Williams, Percy Glyyn Savours, University College, London.
Willis, William Frederick, St. Mary's Hospital.
Wilson, Arthur Harold, Mason's College, Birmingham.
Winston, Gerald Denton, St. Mary's Hospital.
Wraith, Ernest Arnold, Yorkshire College, Leeds.
Wroughton, Arthur Oliver Bird, St. Bartholomew's Hospital.
Wyndham, Thomas, St. Bartholomew's Hospital.
Young, Edward, London Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Conjoint Examining Board, held in Glasgow, the following candidates passed the respective examinations:—

First Examination (Five Years' Course).—David Campbell, Inverliver; Walter Hibbert, Bradford; James T. O'Connor, Carrigrohane; William Mason, Belper; John Glen Parker, Neilston. In Division II. (Chemistry) only: Samuel Vernon Robinson and James Durrans.

First Examination (Four Years' Course).—Passed with distinction: Christopher Wm. Davidson, London. Passed: Wm. Haslam Brooks, Bolton; Arthur George Johnson, Sutton-on-Trent; George C. Beamish Cork; Harry T. Davies, Southport; Joseph Sanderson, Yorkshire; George James Goldie, Portobello; Charles Joseph Sutton, Cork; Thomas Homer, Worcestershire; Alexander C. Campbell, Glasgow; Walter Beck, Belfast; Michael M'Manus, co. Roscommon; Samuel M'Lure Gibson, co. Down. In Division I. (Chemistry) only: Hassam A. Lakhani.

Second Examination (Five Years' Course).—Mary B. Wilson, Ochiltree; Alexander Ross, Glasgow; Duncan M'Gregor, Aberfoyle.

Second Examination (Four Years Course).—Arthur Charles Adderley, Cork; George M. Speers, co. Antrim; Hugh M'Kay, Glasgow; Joseph Scott Gill, co. Tyrone; John A. M'Ilroy, New Zealand; T. C. Krishna Kurup, Malabar; James T. Hancock, Birkenhead; Edmund Barker, Horingham, Yorkshire; Richard J. Owen, Anglesey: Ernest Blair, South Shields; Alexander Kennedy, Ayr; William Watson, Glasgow; James M. Ramsay, Airdrie; William Alexander Pope, Dalkey; Michael M'Manus, co. Roscommon; David S. Henderson, Coatbridge; John C. Glen, South Bank, Yorkshire; George H. Pearce, Whitby; Edward B. H. Hughes, Wellington-on-Tyne; Joseph H. Waddington, Bradford; B. B. Vora, India. In Division I. (Anatomy): William G. Pritchard, Thomas W. Mason. In Division II. (Physiology): Albert Ernest Blades. In Divisions I. and II.: Emily Frances FitzSimmons, James L. Brownridge.

Final Examination.—William James D. Preston, Runcorn; Henry Bateson, Edinburgh; John M'Lean, Glasgow; Rev. James Fenwick, Glasgow; Edmund Denison, Leeds; James Rutherford, Moffat; Samuel T. Brooks, Farnworth: Minnie Ethel Bowlby, London; Edward Vivian Halliday, Edinburgh; Henry J. Heginbotham, Stockport; William D. Jones, Glasgow; Stella Irene Flora Greaves, London; John A. Dyson, Hull; Robie Wendell West, Edinburgh; Thomas French, Westwood, co. Cork. In Division III. (Midwifery, &c.): S. S. Siddall, Jeanie G. R. Duggan, and James S. Montgomery. In Divisions I. and III. (Medicine, Midwifery, &c.): Daniel W. Jones. In Divisions II. and III. (Surgery, Midwifery, &c.): John Thorney.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Lord Crewe has bequeathed £200 each to the Chester and Stafford Infirmaries, £100 to the North Staffordshire Infirmary, £300 to St. George's Hospital, and £100 each to the Westminster Hospital and the Seamen's Hospital, Deptford.—The Clothworkers' Livery Company has sent a donation of £60 to the Royal Hospital for Diseases of the Chest, City-road, London.—The late Mr. James T. Edge, D.L., of Stretley Hall, Notts, has bequeathed £500 to the Nottingham General Hospital and £100 to the Lunatic Hospital, at the Coppice, Nottingham.—The German Emperor has sent a donation of £150 to the Convalescent Home in connexion with the Association of German Governesses, Wyndham-place, London.—Mr. J. Stefanovich Schilizzi and Mr. Paul Stefanovich Schilizzi have sent a donation of £100 to the East London Hospital, in memory of their brother the late Mr. Demetrius Schilizzi.—Miss Grace Rolleston, late of Hyde Park-terrace, London, has bequeathed £1000 to the Throat Hospital, Golden-square.—The late Mr. Edwin F. Gyde of Ebley House, Gloucestershire, has bequeathed £500 each to the Bristol Infirmary and the Stroud Hospital.—Mr. Thomas C. Bland, late of St. John's Wood Park, Hampstead, has bequeathed £250 to the North Wales Counties Asylum at Denbigh.—The late Miss Harrison of Burton-street, Wakefield, has bequeathed £500 to the Lupset Convalescent Home.—The Court of Common Council, London, has granted 100 guineas to the board of the London Lock Hospital and Rescue Home, Westbourne-green, Harrow-road.—The treasurer of the Radcliffe Infirmary, Oxford, has

received from Mr. James Mason, of Eynsham Hall, £500 towards the funds for altering and improving the building.—The late Mr. Thos. Matthews of Hillside, Aylestone Hill, Hereford, has bequeathed £250 each to the Northern General Hospital and the Southern General Hospital at Liverpool, £200 to the Hereford Dispensary, and £500 each to the Hereford General Infirmary and the Victoria Eye and Ear Hospital at Hereford.—The workmen of Sir W. G Armstrong, Mitchell and Co. at Elswick have contributed £213 3*s.* 9*d.* for the quarter ending March 31st last to the local medical charities, of which £161 3*s.* 9*d.* was apportioned to the Royal Infirmary, Newcastle.—Mr. H. Harben, J.P., has contributed £500 towards the endowment fund of the Cottage Hospital, Horsham.—The residue of the estate of the late Mrs. Mary Ann Younge of Ranmoor, Sheffield, amounting to nearly £1000, has recently been handed over to the Jessop Hospital for Women, Sheffield.—Mr. John Clark, late of the Anchor Thread Works, Paisley, has bequeathed £10,000 to the Paisley Infirmary, £5000 to the Clark Bequest Fund for Consumptive Patients in Paisley, and £5000 to the Paisley Convalescent Home at West Kilbride.—Mrs. Mary Anne Fuller has bequeathed to the Adelaide Hospital £1000, to the Stillorgan Convalescent Home £1000, to the City of Dublin Hospital £500, and to the Meath Hospital, Dublin, £500.—The late Dr. R. Macdonald, coroner for North-East London and Middlesex, has bequeathed £1000 each to the Royal Caledonian Asylum and the Scottish Corporation, while the residuary estate is left in trust for the Glasgow Royal Infirmary and six hospitals in the City and County of London.—Mrs. Amelia Cator, late of Stone Court, Carshalton, has bequeathed £500 to the Royal Hospital for Consumption, Brompton.

THE GERMAN HOSPITAL.—A special meeting summoned by certain members of the governing body of the German Hospital was held on Tuesday, May 8th, at the Cannon-street Hotel, and the tone of the meeting can only be termed bellicose. A misunderstanding has arisen between the Protestant and the Roman Catholic and Jewish chaplains of the institution. It has been suggested that attempts have been made on the part of some of the Protestant officials of the hospital to proselytise the patients of other creeds and denominations, and that tracts have been freely distributed with this end. The storm which culminated at this meeting had been brewing for some considerable time. The Protestant party stoutly denied the accusations, while the anti-Protestant party as vehemently reiterated their statements. A resolution was finally carried to the effect that the institution should be conducted as hitherto, though the figures were challenged and a poll demanded. This was refused and the matter thus remains *in statu quo*, but it is to be hoped that should it come up again for reconsideration the discussion will be conducted with more tolerance and equanimity.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.—The deaths of the following are announced:—Dr. E. Szilágyi, Professor of Ophthalmology in the University of Clausenburg, who was well known to all in the neighbourhood as the "Gratis Professor." He was a bachelor and quite a recluse in his way, no one being admitted into his house. He never practised for a living, though at times he consented to visit well-to-do people, from whom, however, he always refused payment. The only relative he appeared to have was his brother, the Hungarian Minister of Justice.—Dr. Louis von Uslar, Extraordinary Professor of Pharmacy in the University of Göttingen, and Chemical Expert for Hanover.—Dr. Félix Aramendia y Bolea, Professor of Clinical Medicine in the Central University, Madrid.—Dr. Alexander Schmidt, Professor of Physiology in the University of Dorpat (or Jurieff), at the age of sixty-three. He studied medicine in that university and after taking his degree spent some four years in visiting various German universities, working especially under Virchow in Berlin and Hoppe-Seyler in Tübingen. He then returned to Dorpat and took part in the teaching of physiology there. His most important researches—that is to say, those connected with the coagulation of the blood—were commenced very early in his career and were carried on mainly in Dorpat, but for a time in Leipsic, in Professor Ludwig's laboratory. He was appointed Ordinary Professor of Physiology in Dorpat in 1867 and was Rector from 1885 to 1889. He had not lectured for the last few years, having taken Emeritus rank.—Dr. Carl Carlovich Iskerski, surgeon-general of the 1st Russian Army Corps, at the age of sixty-five. He became qualified as a surgeon in Kieff in 1849, taking the degree of M.D. in 1852. He served in Sebastopol during the siege, and subsequently in the Russo-Turkish War in 1877. He was an ardent military sanitarian and published papers on Trachoma and Scurvy, both of which diseases are or have been very rife in the Russian Army.—Dr. Léon Labbé of the Hôtel Dieu Hospital, Paris.

PRESENTATION.—Mr. Frank Stevenson, M.B., C.M. Edin., of Todmorden, Yorkshire, has been presented by the members of the St. John Ambulance classes, Walsden, in recognition of his valuable instructions on "First Aid," with a case of surgical instruments bearing the following inscription: "Presented to F. Stevenson, M.B., C.M., by the St. John Ambulance Class, Walsden, 1894."

THE fifty-fifth annual report of the Royal Orthopædic Hospital states that the receipts from all sources for the past year amounted to £1724 19*s.* 3*d.* The disbursements amounted to £2182 14*s.*, leaving a balance of £104 4*s.* to be carried forward; Christmas bills, amounting to £334 11*s.* 5*d.*, however, are outstanding against the institution. The number of patients admitted during the year was 1053; the total number admitted since the opening of the hospital has been 76,773.

THE VICTORIA HOSPITAL FOR CHILDREN.—An appeal has just been made to the public by the president of the hospital, Earl Cadogan, K.G., on behalf of the poor little sufferers to whom the institution gives and has given relief. Over £2000 is still required to pay off the debt incurred by the building of the Convalescent Home at Broadstairs, while there is a deficit on the working of the home last year of £604. The Convalescent Home now maintains fifty beds and if kept full all the year round would enable 650 children to be admitted, allowing to each a period of four weeks' residence.

EAST LONDON HOSPITAL FOR CHILDREN.—On Monday evening a number of the patrons of the East London Hospital for Children met under the presidency of the Marquis of Zetland in the Whitehall Rooms of the Hôtel Métropole, at a dinner in aid of the funds of the hospital. The chairman, in proposing the toast of "The Children's Hospital," spoke from personal observation of the value of the work done in the institution, which was situated in one of the poorest parts of the metropolis. The 102 beds which the hospital contained were always full. The number of in-patients for the year 1893 was 1533, and that of the out-patients 27,886. Donations of over £1000 were announced.

THE fifty-fourth annual report of the South Devon and East Cornwall Hospital states: the number of patients treated in the wards during the past year has been 1273, of whom 1028 have been surgical and 245 medical cases. Of these patients 649 were discharged cured, 178 were greatly benefited, 85 were relieved, 44 became out-patients, 29 left at their own request, 10 were sent to convalescent homes, 69 were fitted with instruments, 9 were not hospital cases, 33 were unrelieved, 66 died, 5 were sent to the fever hospital, and 96 were retained in the wards for further treatment. In the out-patient department 2861 persons were attended for minor casualties or ailments and paid in all 9634 visits to the hospital. In connexion with in-patients there have been 619 operations performed and in connexion with out-patients 238. There has been an increase of expenditure over the previous year (omitting extraordinary outlay on plant) of £144, but this is fully accounted for by the much larger number of patients who have been under treatment.

THE ROYAL INSTITUTION OF GREAT BRITAIN.—The general monthly meeting was held on Monday, May 7th, 1894, Sir James Crichton-Browne, M.D., LL.D., F.R.S., Treasurer and Vice-President, being in the chair. The following vice-presidents for the ensuing year were announced:—Sir Frederick Abel, Bart, K.C.B., D.C.L., LL.D., F.R.S.; Sir Douglas Galton, K.C.B., D.C.L., LL.D., F.R.S.; William Huggins, Esq., D.C.L., LL.D., F.R.S.; Ludwig Mond, Esq., F.R.S.; Hugo Müller, Esq., Ph.D., F.R.S.; Basil Woodd Smith, Esq., F.R.A.S., F.S.A.; Sir James Crichton-Browne, M.D., LL.D., F.R.S., treasurer; and Sir Frederick Bramwell, Bart., D.C.L., F.R.S., hon. secretary. After the election of new members, among whom were the Earl of Carnarvon and the Right Hon. George Denman (Mr. Justice Denman), the special thanks of the members were voted for the following donations to the fund for the promotion of experimental research at low temperatures: Sir William O. Priestley, M.D., £50; Sir David L. Salomons, Bart., £50.—"Colour Vision" formed the subject of the

Tyndall Lectures which were commenced at the Royal Institution on Saturday last, May 5th. Captain Abney, C.B., will deliver the second and third lectures of his course on Saturdays, May 12th and 19th.

GENERAL MEDICAL COUNCIL.—The statutory meeting of the General Medical Council will commence on Tuesday, May 22nd, at 2 P.M.

THE next half-yearly dinner of the Aberdeen University Club, London, will be held at the Holborn Restaurant on Wednesday, May 16th, at 7 30 P.M. Sir Robert G. C. Hamilton, K.C.B., M.A., LL.D. Aberd., a vice-president of the club, will take the chair. The annual business meeting will be held at 7 P.M.

DR. TWINING of Salcombe, who was thrown out of his dog-cart on May-day, has had his right leg amputated at the South Devon and East Cornwall Hospital. This is the sad sequel to an accident resulting from an old-fashioned west-country custom of squirting water on May-day. Dr. Twining's horse was frightened by a jet of water squirted by some boys, which struck it, and, getting out of control, upset the dog-cart.

ROYAL COLLEGE OF SURGEONS IN IRELAND: ANNUAL ELECTIONS.—A meeting of the President, Vice-president, and Council will be held on Thursday, May 17th, to elect examiners. A meeting of the Fellows will be held on Saturday, June 2nd, to receive the annual report of the Council. A meeting of Fellows will also be held on Monday, June 4th, to elect a President, Vice-president, Council, and Secretary for the ensuing year.

MEDICAL MAYORS.—It is worthy of note that no less than four medical men have recently been elected mayors in New South Wales—viz., Dr. J. W. Hester, mayor of Stockton; Mr. L. D. Parry, mayor of Murrumburrah; Dr. W. Cleaver Woods, mayor of Albury; and Mr. H. J. H. Scott, re-elected mayor of Scone. The last-named gentleman is in England well known as a cricketer, having been captain of an Australian eleven that visited England some years ago, when the English captain, in the person of Mr. W. G. Grace, was also a medical practitioner.

FOREIGN UNIVERSITY INTELLIGENCE.—*Leipsic:* Dr. Escherich of Gratz has been offered the post of Professor of Pædiatrics, as successor to Professor Heubner.—*Helsingfors:* Dr. R. Kolster has been recognised as *docent* in Pathological Anatomy.—*Kieff:* Dr. M. A. Voskresenski has been recognised as *privat-docent* in Midwifery and Gynæcology.—*Stockholm:* Dr. Berg has been promoted to the Ordinary Professorship of Surgery.—*St. Petersburg (Medico-Chirurgical Academy):* Dr. N. G. Ushinski has been recognised as *privat-docent* in Forensic Medicine.—*Kazan:* Dr. N. Popoff of Warsaw has been appointed to the chair of Mental Diseases and Neurology.—*Kharkoff:* Dr. Leplinski has been recognised as *privat-docent* in Neurology.—*Greifswald:* The title of Professor has been granted to Dr. Ballowitz, *privat-docent* in Anatomy.—*Gratz:* Dr. Ludwig Hofer von Sulmthal has been appointed Extraordinary Professor of Internal Medicine.—*Vienna:* Dr. Julius Scheff, *privat-docent* in Odontology, has been granted the title of Extraordinary Professor.—*Munich:* Miss Sophie Nordhoff, a German lady who studied medicine in Washington, has been appointed Assistant Medical Officer in Professor von Winckel's Obstetric Clinic.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT the extraordinary comitia of the Royal College of Physicians of London, held on the 10th inst., Dr. Russell Reynolds, President, in the chair, the Fellows elected at the last meeting were admitted.

A letter was read from Dr. John Shaw resigning his Membership of the College on account of his being about to enter into partnership. The resignation was accepted.

A communication was read from the Association for Promoting the Opening of Museums on Sundays asking the coöperation of the College in the movement. On the motion of Sir H. Pitman, it was resolved to reply that the College, without expressing any opinion on the merits of the question, was not in a position to coöperate in its corporate capacity with the Association.

On the motion of Sir Dyce Duckworth, Drs. Caton and Glynn were nominated as delegates of the College to the Sanitary Congress at Liverpool in September next.

The following proposal from Professor Ramsay of University College, London, was submitted by the President: "That delegates be appointed by the College to join similar delegates from other institutions which have expressed a general approval of the recommendations of the Gresham University Commission, with a view to impress on the Government the importance of giving effect to those recommendations."

A resolution agreeing to the above was moved by Dr. Norman Moore and seconded by Dr. H. H. Tooth. An amendment to postpone taking action, moved by Sir W. Priestley and seconded by Dr. Isambard Owen, was lost, and the original motion was carried. It was also agreed, on the motion of Dr. Moore, to invite the delegates to meet in the College. The report of the Inspector and Visitor of the General Medical Council upon the examinations for the licence was received and ordered to be sent to the Committee of Management, together with the replies of the examiners thereon.

On the recommendation of the Committee of Management, the Bethlem Royal Hospital for Lunatics was added to the list of lunatic asylums recognised by the two Colleges.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, MAY 3RD.

School Dietary.

MR. SHAW-LEFEVRE informed Dr. Farquharson that the evidence taken at the inquiry held at the Forest-gate Schools in September, 1893, into the circumstances connected with the death of certain children there by ptomaine poisoning, showed that there had been great irregularities in the prescribed dietary, the views of the Board as to these irregularities had been communicated to the managers, and by them to the superintendent, and the Board were assured that they would not occur again.

New Site for the Guards' Hospital.

Mr. Campbell-Bannerman, in reply to Mr. Hanbury, said that the Guards' Hospital in Rochester-row had not sufficient accommodation for the sick of the brigade, and a site had been secured at Millbank for the erection of a hospital to accommodate all the sick in the garrison of London. At present it was necessary to send some of the sick to hospitals outside London. No person suffering from an infectious disease was sent by train to any destination.

Health of English Troops in India.

Dr. Farquharson asked the Secretary of State for War whether, in view of the serious amount of typhoid fever and other severe ailments among English troops in India, and the absence of any trained nursing corps of orderlies, he would consider the advisability of sending detachments of the Medical Staff Corps to India. Mr. Campbell-Bannerman said it was for the Secretary of State for India to consider whether the Medical Staff Corps should be introduced into India. The expense would be great, and this element in the question would no doubt greatly influence the views of the Government of India. In India there were now a native army hospital corps and a highly trained body of lady nurses, who were available for typhoid fever and other severe ailments.

FRIDAY, MAY 4TH.

Barrack Accommodation.

In reply to several questions on this subject Mr. Campbell-Bannerman stated that washing accommodation was provided in all barracks for private soldiers, but hot water was not supplied at the public expense except in barracks where recruits were received. In many cases the sleeping-rooms were also used for eating-rooms. Day-rooms were being tried at Dublin. He was also understood to say that blankets were washed yearly. Mr. Hanbury, who was not satisfied with the right hon. gentleman's answer, gave notice that he would call attention to the matter on the Army Vote.

MONDAY, MAY 7TH.

Insanitary Houses at Liverpool.

Mr. Shaw-Lefevre informed Mr. Forwood that the City Council of Liverpool had applied to the Local Government Board for sanction to a loan of £50,000 for the demolition of insanitary houses in that borough. £25,000 had already been granted, and the Board had withheld the remainder until a local inquiry had been made. Mr. Shaw-Lefevre promised to do his best in the matter of accelerating the inquiry.

Insanity in England and Wales.

Mr. Hayden called attention to the apparent increase in the number of insane persons in England and Wales. The Home Secretary said that the Lunacy Commissioners believed that this was due to the larger numbers of cases brought under notice and detained under treatment.

The Budget Bill.

On the second reading of this Bill Mr. Usborne referred to a point, which was commented upon by THE LANCET in a leading article on Saturday, April 21st. Mr. Usborne said that suggestions had been made that the publican might recoup the amount lost to him by an increased tax by diluting the spirits before selling them to the public; but he pointed out that if the publican diluted his spirits below a certain point he was liable to prosecution.—The Chancellor of the

Exchequer, however, informed the hon. member that this was not so if the publican announced the fact that the spirits were diluted.

WEDNESDAY, MAY 9TH.

London County Council (General Powers) Bill.

Some discussion took place on the consideration of this Bill, and objection was made to the proposals of the Committee that the lighting of the staircases of workmen's dwellings should be paid for, half by the private owners of the houses and half by the local authorities out of the rates. Eventually this objection was withdrawn, and the further discussion of the Bill postponed.

THURSDAY, MAY 10TH.

Bovine Tuberculosis.

Mr. Field asked the President of the Local Government Board whether the report of the Commission on Bovine Tuberculosis was ready for publication, or when its issue might be expected.—Mr. Shaw Lefevre replied that he was informed by the Commissioners that they were making satisfactory progress with their report, and that it might be expected very shortly.

BOOKS ETC. RECEIVED.

ALCAN, FÉLIX, Boulevard Saint Germain, Paris.
Le Traitement Physiologique de la Mort: les Tractions rythmées de la Langue. Par J. V. Laborde. 1894. pp. 137.

BAILLIÈRE, J. B., ET FILS, Paris.
Formulaire des Eaux Minérales. Par Dr. de la Harpe. Introduction par le Dr. Dujardin-Beaumetz. 1894. pp. 300.

BLACKIE & SON, 49, Old Bailey, London.
The Natural History of Plants: their Forms, Growth, Reproduction, and Distribution. From the German of A. Kerner von Marilaun. By F. W. Oliver, M.A., D.Sc., assisted by Others. Illustrated. Part I. 1894. pp. 112. Price 2s. 6d. net.

CASSELL & COMPANY, London.
Difficult Labour: a Guide to its Management for Students and Practitioners. By G. Ernest Herman, M.B.Lond., F.R.C.P. Illustrated. 1894. pp. 443.

CORNISH BROTHERS, Birmingham.
The Ingleby Lectures, 1894: The Common Forms of Dyspepsia in Women. By Robt. Saundby, M.D.Edin. 1894. pp. 33.

CURWEN & SONS, Warwick-lane, London, E.C.
The Mechanism of the Human Voice. By Emil Behnke. Ninth Edition. pp. 164. Price 1s. 6d.

GAZETTE PRINTING COMPY., Montreal.
A Retrospect of Surgery: January, 1890—January, 1894. Prepared by Francis J. Shepherd, M.D., C.M. Reprint. pp. 259.

KIMPTON, H., High Holborn, London, and HIRSCHFIELD BROTHERS, Bream's-buildings, Fetter-lane, London.
Domestic Hygiene. By Thos. Dutton, M.D.Durh. 1894. pp. 190.

MACMILLAN & CO., Bedford-street, Covent-garden, London, W.C.
Materials for the Study of Variation Treated with Especial Regard to Discontinuity in the Origin of Species. By William Bateson, M.A. 1894. pp. 598.

NUTT, DAVID, 270, Strand, London, W.C.
Biological Lectures and Addresses. Delivered by the late A. M. Marshall, M.D. Edited by C. F. Marshall, M.D. 1894. pp. 363.

SAUNDERS, W. B., Walnut-street, Philadelphia.
Saunders' Question-Compends, No. 18. Essentials of Practice of Pharmacy: Questions and Answers. By Lucius E. Sayre, Ph.G. Second Edition. 1894.

STILLWELL & CO., Collins-street, Melbourne, Australia.
The Proclivity of Civilised Woman to Uterine Displacements: the Antidote. Also other contributions to Gynecological Surgery. By M. U. O'Sullivan, L.M.R.C.S., L.R.C.P.Edin. 1894. pp. 84.

THE CLARENDON PRESS, Oxford.
Alternating Generations: A Biological Study of Oak Galls and Gall Flies. By Hermann Auler, M.D. Schleswig. Translated and edited by Charles R. Stratton, F.R.C.S.Edin., F.C.S. Illustrated. 1894. pp. 198. Price 10s. 6d. net.

THE W. T. KEENER COMPY., Chicago.
The Etiology of Osseous Deformities of the Head, Face, Jaws, and Teeth. By Eugene S. Talbot, M.D., D.D.S. Third Edition. Illustrated. 1894. pp. 487.

VOSS, LEOPOLD, Hamburg and Leipzig.
Die Causale Behandlung der Tuberculose. Experimentelle und Klinische Studien. Von Edwin Klebs. 1894.

WHITTAKER & CO., Paternoster-square, London.
Electric Light Installations: Apparatus. Vol. II. A Practical Handbook. By Sir David Salomons, Bart., M.A. Seventh Edition. Illustrated. 1894. pp. 318.

Mathews' Medical Quarterly, April, 1894 (John P. Morton & Company, Louisville, Ky.).—Bibliothèque d'Éducation Spéciale: II., Rapports et Mémoires sur le Sauvage de l'Aveyron, l'Idiotie, et la Surdi-Mutité; par Itard (Félix Alcan, Paris, 1894).—Du Cholestéatome de l'Oreille; par Drs. L. Lightwitz et J. Sabrazès (de Bordeaux) (G. Masson, Paris, 1894).—Nature *versus* the Devil; by Edmond Knight (Simpkin, Marshall, & Co., London); price 6d.—The proposed Formation of an Inferior Order of Midwifery Practitioners, or a Plea for the supplying of the Highest Medical Aid to all Women during Pregnancy and Childbirth; by Robt. R. Rentoul (E. & J. Gibbons, Liverpool); price 1s. net.—The Quarterly Journal of Microscopical Science; Special Complimentary number, dedicated by his colleagues to E. Ray Lankester, M.A., LL.D., F.R.S.; April, 1894 (J. & A. Churchill, London); price 10s.—The Humanitarian, May, 1894 (Swan, Sonnenschien & Co., London).—Science Progress, May, 1894 (The Scientific Press, Strand, London); price 2s. 6d.—On the Care of the Dying: A Lecture to Nurses; by Oswald Browne, M.B.Cantab., M.R.C.P. (George Allen, Charing-cross-road, London); price 6d. net.—A Contribution to the Arrangement and Functions of the Cells of the Cervical Spinal Cord; by Joseph Collins, M.D. (reprint from the New York Medical Journal, January, 1894).—Collezione Italiana di Letture sulla Medicina, Serie viii., No. 2 (Casa Editrice, Dottor F. Vallardi).—Diagnostik der Geisteskrankheiten für Praktische Aerzte und Studirende; von Dr. med. et phil. Robert Sommer; mit 24 Illustrationen (Urban u. Schwarzenberg, Wien und Leipzig, 1894).—Die durch eitrige Mittelohrentzündung verursachte Lateralsinus-Thrombose und deren operative Behandlung; von Arthur Af. Forsells (O. W., Backman, Kuopio, 1893).—Policy Values; by James P. Bourne, Associate of the Institute of Actuaries (Alexr. Trengove, Paternoster-row, London, E.C.); price 3s.—Journal de Médecine, de Chirurgie, et de Pharmacologie: Annales, tome iii., fascicules i. et ii. (Henri Lamertin, Bruxelles, 1894).—Leeds Hospital Magazine, May, 1894.—The Diagnostic Value of Ehrlich's Diazo Reaction; by Chas. L. Greene, M.D. (reprint from the Journal of the American Medical Association, February, 1894, Chicago).—Manual Instruction in Schools: its Object, Principles, and Educational Importance, and "Sloyd," its most adequate form; by Chas. B. Shuttleworth, student of Naas, Sweden, 1893 (O. Newmann & Co., London, 1894).—Die Behandlung der Leukaemie: Kritische Studie; von Dr. H. Vehsemeyer, Berlin (Williams & Norgate, London, 1894).—Zur Behandlung der Lungentuberculose mittels Koch'scher Injectionen; von Dr. E. Thorner, Berlin (Williams & Norgate, London, 1894).—Ueber den Schmerz in physiologischer und klinischer Hinsicht; von Dr. Alfred Goldscheider (A. Hirschwald, Berlin, 1894).—Erfahrungen über Nierenchirurgie; von Prof. Dr. James Israel (L. Schumacher, Berlin, 1894).—The Verulam Review, April-June, 1894 (E. Stock, Paternoster-row, London); price 1s.—The Ophthalmic Review: a Monthly Record of Ophthalmic Science, April, 1894 (J. & A. Churchill, London); price 1s.—Defective Articulation Resulting from Cleft Palate; by William van Praagh; reprint; second edition (Kegan, Paul, Trench, & Co., London, 1894); price 1s.—On Melancholia: an Analysis of 730 Consecutive Cases; by W. F. Farquharson, M.B.; reprint (South Counties Press, High-street, Lewes).—The Physician's Testimony for Christ: an address delivered by Sir A. Clark, Bart, M.D.; with Preface by Sir Dyce Duckworth, M.D. (Christian Evidence Society, London); price 6d.—The Practitioner, May, 1894 (Macmillan & Co., London); price 1s. 6d.—Manuals of Health: Notes on the Ventilation and Warming of Houses, Churches, Schools, and other Buildings; by the late Ernest H. Jacob, M.A., M.D.Oxon (Society for Promoting Christian Knowledge, Northumberland-avenue, London, W.C., 1894); price 1s.—The Evolutionary Development of Infectious Diseases; by Wm. Craig M.B., C.M. (Young J. Pentland, Edinburgh and London, 1894).—The Aseptic Dressing of the Umbilical Stump; by Joseph E. Allen, M.D., reprint (Wm. Wood & Company, New York, 1894).—Handbuch der Speciellen Therapie innerer Krankheiten, in sechs Bänden; von Dr F. Penzoldt und Dr. R. Stintzing; dritte und vierte Lieferung (Gustav Fischer, Jena, 1894).—The Little Man Island: Scenes and Specimen Days in the Isle of Man; by Hall Caine; Tourist season, 1894 (The Isle of Man Steam Packet Company, Douglas).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BALDWIN, ASLETT, L.R.C.P.Lond., M.R.C.S.Eng., has been appointed House Surgeon to the Middlesex Hospital.

CHATTAWAY, Mr., has been appointed Public Analyst for Hammersmith.

CLARKE, E. C., L.D.S., R.C.S.Irel., has been appointed Honorary Dentist to the Carnarvonshire and Anglesey Infirmary.

COLE, THOS. W., M.B., B.Ch.Dubl., has been appointed Medical Officer of Health for the Bolsover Urban Sanitary District of the Chesterfield Union.

DIXON, H. L., M.A., M.B., B.C., D.P.H.Camb., has been appointed Junior Assistant Medical Officer to St. Andrew's Hospital, Northampton.

FEARNLEY, JONATHAN, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Barrow Sanitary District of the Glanford Brigg Union.

GAYLOR, EDWARD, L.R.C.P., L.M.Edin., L.F.P.S.Glasg., has been reappointed Medical Officer of Health to the Alfreton Local Board.

GOLDSMITH, G. H., M.B., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Bedford General Infirmary.

GREY-EDWARDS, H., M.B., B.Ch.Dubl., has been appointed Honorary Physician to the Carnarvonshire and Anglesey Infirmary.

GRIFFITHS, A. V., M.R.C.S., has been appointed Medical Officer of Health for the parish of Fenton Urban Sanitary District, Stoke-upon-Trent.

HARPER, JOSEPH, L.R.C.P.Lond., M.R.C.S., has been appointed Consulting Surgeon to the North Devon Infirmary.

HAYNES, SYDNEY W., M.B., &c., has been appointed Honorary Anæsthetist to the Birmingham and Midland Eye Hospital.

HEYWOOD, CHRISTOPHER CHARLES, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., has been appointed Honorary Medical Officer to the Pendleton Branch Dispensary of the Salford Royal Hospital, vice Philip Worley, resigned.

HOFFMEISTER, WM., M.D.Heidelb., L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer of Health to the West Cowes Local Board.

JONES, W. BLACK, M.B., B.S.Lond., has been appointed House Physician to the Great Northern Central Hospital, Holloway.

KEYWORTH, A. F., M.R.C.S.Eng., L.R.C.P., L.M.Irel., has been appointed Medical Officer of Health to the Marple Urban Sanitary District.

KING, FALCONER, has been appointed Analyst to the Elgin County Council.

LESLIE, ROBERT M., M.A., M.B.Edin., has been appointed House Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

MACRAE, JOHN FARQUHAR, M.B., C.M.Edin., has been appointed Medical Officer to the Brighton and Preston School Board.

NEECH, JAS T., L.R.C.P., L.M.Edin., L.F.P.S.Glasg., has been reappointed Medical Officer of Health for Atherton.

OLIVER, THOS., M.D., C.M.Glasg., F.R.C.P.Lond., has been reappointed Honorary Surgeon to the Newcastle Infirmary.

OSBALDESTON, L. F., M.R.C.S., has been reappointed Medical Officer for the Third Sanitary District of the Hatfield Union.

PARSONS, G. G., L.R.C.P.Lond., M.R.C.S., has been appointed House Surgeon to the Carnarvonshire and Anglesey Infirmary.

PIGGOTT, F. C. H., M.D., M.R.C.S., has been appointed Medical Officer of Health for the Teignmouth Urban Sanitary District.

POLLOCK, E. S., M.B., B.Ch.Dub., has been appointed Medical Officer for the Parishes of Poughill, Puddington, and Woolfardisworthy, of the Crediton Union.

POWNE, L., M.R.C.S., has been appointed Medical Officer for Cheriton Fitzpaine and Stockleigh English of the Crediton Union.

PROSSER, FRANK, M.B., C.M.Glasg., has been reappointed Medical Officer of Health for Rainford.

RANDOLPH, CHAS., L.R.C.P., L.M.Edin., M.R.C.S., has been re appointed Medical Officer of Health for the Wellington Rural Sanitary District.

ROBERTS, Chas., M.R.C.S., has been reappointed Medical Officer of Health for the Uxbridge Rural Sanitary District.

SANDFORD, G. CALROW, M.B., C.M.Edin., has been appointed House Surgeon to the Royal Maternity and Simpson Memorial Hospital, Edinburgh.

SAYRES, A. W. F., M.R.C.S.Eng., L.R.C.P.Lond., has been appointed Medical Officer to the Wincanton Union Workhouse and District and Public Vaccinator.

SLANE, H. J., M.B., M.S.Edin., has been appointed Medical Officer for the Nafferton Sanitary District of the Driffield Union.

STEEGMANN, EDWARD J., M.B., B.S., M.R.C.S., L.R.C.P., has been appointed House Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

STRICKLAND, C. E., L.R.C.P.Irel., M.R.C.S., has been appointed Medical Officer for the Park Sanitary District of the Sheffield Union.

THOMPSON, W. H., L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer of Health for Quarry Bank, Staff.

TURNER, J. A., M.B., C.M.Edin., has been appointed Public Analyst to the Blaby Rural Sanitary Authority.

VAUGHAN-JACKSON, H. F., L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer for the First Sanitary District of the Hatfield Union.

WILLOUGHBY, WM. G., M.D.Lond., L.R.C.P., M.R.C.S., D.P.H.Camb., has been appointed Medical Officer of Health, Eastbourne.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary £50 per annum, with board, washing, lodging, &c.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Resident Junior House Surgeon and Dispenser, for three years. Salary £50 a year, with board, apartments, and laundress.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer who shall act as Pathologist, for five years, unmarried. Salary £100, increasing by £25 annually to £200, with board, &c. Also Assistant Medical Officer, for five years, unmarried. Commencing salary £100 per annum, with board, &c. Also Clinical Assistant, for six months. Board, &c., provided. Also a qualified Dispenser, unmarried. Salary to commence at £50, with board, &c.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary £100 a year, and board and lodging. Applications to Hon. Sec., 16, South Bailey, Durham.

EVANGELICAL PROTESTANT DEACONESSES' INSTITUTION AND HOSPITAL, Tottenham, N.—Senior House Surgeon. Salary £40, with board, &c.

FISHERTON ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Apply to Dr. Finch, Salisbury.

GORDON HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, 276, Vauxhall-bridge-road, S.W. Two additional Honorary Surgeons.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Surgeon. Board, apartments, and laundry provided.

KENT COUNTY ASYLUM, Chartham, near Canterbury.—Junior Assistant Medical Officer, single. Salary £125 per annum, with furnished apartments, board, and attendance. Applications to Mr. A. Fielding, Solicitor, Canterbury.

LANCASTER INFIRMARY AND DISPENSARY.—House Surgeon, unmarried. Salary £80, with residence, board, attendance, and washing.

LONDON COUNTY COUNCIL.—Coroner for the North-Eastern District of the County of London. Salary for the ensuing five years £1150 a year. Applications to the Clerk of the Council, Spring-gardens, S.W.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer, at Bowdon, Cheshire. Salary £60 per annum, with board, apartments, and washing.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, 32, Soho-square, W.—Honorary Physician, to take charge of the Electrical Department.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Honorary Assistant Ophthalmic Surgeon.

NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £100 a year, with board, apartments, and washing.

PARISH OF ST. LEONARD, Shoreditch.—Second Assistant Medical Officer, for the Infirmary, Hoxton-street, N., for six months. Salary £40 per annum, with rations, furnished apartments, and washing in the Infirmary. Applications to the Medical Officer, 204, Hoxton-street, N.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners.

ROYAL CORNWALL INFIRMARY, Truro.—House Surgeon, unmarried. Salary for the first year £120, increasing by £10 a year to £150, with furnished apartments, fire, light, and attendance.

ROYAL SOUTH LONDON DISPENSARY, St. George's-cross, S.E.—House Surgeon, non-resident. Salary £60 per annum.

ST. LUKE'S HOSPITAL, London, E.C.—Two Clinical Assistants for six months. Board and residence provided.

ST. THOMAS'S HOSPITAL, London.—Resident Assistant Surgeon.

SOCIETY OF APOTHECARIES, London.—Examiners in Medicine, including Forensic Medicine.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House Surgeon, single, for two years. Salary £100 a year, with board, lodging, and washing.

THE GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon, for six months. Residence, board, and washing provided.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Resident Medical Officer as House Physician for six months. Salary £20, with board and residence in the hospital.

THE HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Resident Medical Officer as House Surgeon, for six months. Salary £20, with board and residence in the hospital.

VICTORIA UNIVERSITY, UNIVERSITY COLLEGE, Liverpool (MEDICAL SCHOOL).—George Holt Chair of Pathology. Endowment £375 per annum, together with share of fees. Applications to the Registrar. Also, Derby Chair of Anatomy. Endowment £375 per annum, together with share of fees. Applications to the Registrar.

YORK DISPENSARY.—Resident Medical Officer, to visit and attend the sick poor at their own homes, unmarried. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages and Deaths.

BIRTHS.

HEY.—On April 30th, at Easterfield, Faringdon, Berks, the wife of H. Darwin Hey, M.R.C.S., L.R.C.P., of a daughter.

O'REILLY.—On May 5th, at Thurnby, Guildford, the wife of Surgeon-Lieutenant-Colonel J. O'Reilly, M.B., of a daughter.

PIERCE.—On May 7th, at The Retreat, York, the wife of Dr. Bedford Pierce, of a daughter.

ROBERTSON.—On May 6th, at Mill House, Adderbury, Banbury, the wife of James S. Robertson, M.R.C.S., &c., of a son.

MARRIAGES.

GOODHUE—JONES.—On May 9th, at St. Marylebone Parish Church, Frederick William Jervis Goodhue, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., son of the late Charles F. Goodhue of London, Ontario, Canada, to Ethel Sydney Jones, youngest daughter of Sydney Jones, M.B.Lond., F.R.C.S., of 18, Wimpole-street.

MCALLUM—WYMAN.—On May 8th, at Christ Church, Morningside, Edinburgh, Stuart Gerald McAllum, M.D.Edin., younger son of the late Donald Coleman McAllum, M.D., Brigade-Surgeon H.M. Indian Medical Service, to Edith Geraldine, youngest daughter of the late Frederick Frank Wyman, H.M.B.C. and J.P., formerly of the East India Company's Service.

SMYTH—GORE.—On April 3rd, at St. John's, Darlinghurst, Sydney, Thomas Edward Smith, M.D., Campbelltown, New South Wales, to Emily Augusta (Doody), eldest daughter of A. T. Gore, of Campbelltown.

DEATHS.

BABER.—On May 4th, at Cranley-gardens, S.W., John Baber, M.D., of the Deodars, Meopham, Kent, aged 72.

HAMEL-SMITH.—On May 5th, at Port of Spain, Trinidad, W.I., Lionel Hamel-Smith, M.R.C.S., L.R.C.P.Lond., aged 30.

MORE.—On April 26th, at Rothwell, Kettering, Northamptonshire, Lionel Campbell, fifth son of Dr. James More, aged 19.

TAYLOR.—On May 6th, at 21, Canfield-gardens, South Hampstead, Charles Taylor, M.D., aged nearly 79.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 10th, 1894.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
May 4	29·80	N.	50	46	107	57	46	0·01	Cloudy
„ 5	29·94	N.W.	48	44	107	63	40	..	Cloudy
„ 6	29·85	W.	52	47	107	61	47	..	Cloudy
„ 7	29·83	W.	52	48	113	65	43	..	Bright
„ 8	30·01	N.W.	55	51	103	62	46	..	Bright
„ 9	29·93	S.W.	55	51	95	59	51	..	Overcast
„ 10	29·78	S.W.	54	50	109	55	43	0·10	Cloudy

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET should be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

"MEDICAL PAY IN UNION DISTRICTS."

To the Editors of THE LANCET.

SIRS,—The above heading is only a varied title to a subject that now is seldom absent from your correspondence. Medical pay and treatment are always being discussed; but at present there is no sign of the wrongs being rectified by the right authorities. Not only is the pay bad in union districts, but any person now, unprovided with the usual order, can compel a parish medical officer to turn out and visit a patient during any part of the twenty-four hours. Refusal practically means resignation for the medical officer. The old order is a farce. It requires little consideration to see what a disgraceful and unjust hardship this is in every way. This result is due to recent decisions of the Local Government Board. I presume they have medical advisers, and such belong to the following list: members of the General Medical Council, the various colleges and of the examining bodies, the heads of the profession, consultants, examiners, lecturers. Teachers are recruited generally from those who start life with some extra means, and so are able to bide their time and become what they are. Such men are best able from their position to procure laws and regulations, with means to enforce the same, for the protection of their weaker brethren, to whom they owe much. They get handsomely paid for teaching the future general practitioner and in time pocket his examination fees, with, later, the fees of the patients sent to them by him. No law, no order exists in the ranks of the profession to mend its position, and periodically they are reinforced higgledy-piggledy. Then the powers try to make them behave whilst they are under starving conditions. They (the powers) can also talk grandly, as Mr. Wilkin indicates, forgetting that charity begins at home. I will remark here that if the ordinary medical practitioner acted as it is pointed out he should in Mr. Wilkin's letter, he would be unable to send out any accounts. He would find it necessary to be at the least independent of his profession. Mr. Wilkin, I notice, is a recently qualified man.

The medical journals do their best to help us, but these are read by the comparative few. There being a large section of the general public who are very ignorant of how their medical men are treated, probably if the whole subject of medical pay &c. could be aired thoroughly in the general press good might come. The *Standard* spoke out well some time ago, but this was a rare occurrence. The remedy, however, according to my thinking, lies entirely with the profession. Our predecessors who lived in better times, administered their charity so unselfishly and without question that it is now expected as a right, and impudently demanded. The ordinary practitioner's charity is in daily request to attend the poor, and even those who are often better circumstanced than himself. His time is given free to various so-called charitable institutions, but which are scandalously and openly abused. Second to none in charitable work, he carries his life in his hands—look at the death-roll from diphtheria last year in THE LANCET—but is miserably paid and defrauded all around.

After due consideration and long patience I prefer much to agree with "Medicus," not because I am sanguine a "strike" in our present position would succeed, but because I think some stir must be made.

I am, Sirs, yours truly,

May 7th, 1894. ACTION.

To the Editors of THE LANCET.

SIRS,—In reply to a letter under the above heading in THE LANCET of April 28th, signed "Medicus," I beg to say that for some years I have been a parish medical officer; and I most certainly agree with him, and would support him in every way in my power in organising a general "strike," as I fail to see in what other way our position or pay will ever be altered for the better. There have been too many appeals to boards of guardians and neighbours, and all to no purpose. The paltry stipend to medical officers places them in most cases in positions not as good as fairly well paid agricultural labourers. Let us fight for what we consider a fair and proper remuneration, and in doing so we shall not disgrace ourselves or our profession, but shall relieve the latter of the disgrace which we ourselves have subjected it to for many years by making ourselves too cheap in accepting such paltry and disgraceful salaries.

I am, Sirs, yours very truly,

May 2nd, 1894. A SUPPORTER AND ADMIRER OF "MEDICUS."

To the Editors of THE LANCET.

SIRS,—Your comment on my suggestion of a medical "strike" as a remedy for the wholesale injustice at present inflicted on the profession does not convince me. The strikers should volunteer to attend the sick and suffering, and should take the greatest care that no one necessarily suffered by their action, so that no inhumanity need result. The guardians would not long accept without payment the services of their late officers, and would soon be compelled to appoint officers in compliance with existing legislation by the action of the Local Government Board and by popular opinion. The terms of appointment would then be very much at the discretion of a united profession.

I am, Sirs, yours obediently,

April 28th, 1894. MEDICUS.

TREATMENT OF IMPERMEABLE STRICTURES OF THE URETHRA.

To the Editors of THE LANCET.

SIRS,—The difficulty that is frequently encountered by surgeons in permeating very tight urethral strictures has suggested to me a method of dilating them which others may find of service in their practice. It consists in passing down to the site of the stricture a catheter shaped as a simple cylindrical tube, open at both ends—an ordinary catheter from which the eyed end has been cut off and the edges carefully smoothed does very well,—and through this, as a guide, introducing the largest instrument, from a filiform bougie upwards, which can be made to penetrate the stricture. I shall be glad to know that this plan has been put into operation by other practitioners, and to hear of any success attending its employment.

I am, Sirs, yours faithfully,

Torquay, April 9th, 1894. CHARLES H. WADE.

RETRACTED NIPPLES.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly inform me of any successful treatment (operative or otherwise) for retracted nipples, which may be adopted previously to or during pregnancy? A patient of mine suffered considerably during a previous period of lactation from this cause, which was only partially relieved by the ordinary breast pump

I am, Sirs, yours faithfully,

May 7th, 1894. INQUIRENS.

ELECTRICAL REVIEW AND *SCIENCE SIFTINGS* DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Most of the subscriptions to this fund have been returned; but Messrs. J. W. Dutty and G. M. Macdonald and "Sympathiser" have given me no addresses. May I ask you to publish this, so that the subscriptions can be sent back?—I am, Sirs, yours faithfully,

Hatherley-rd., Kew Gardens, May 6th, 1894. JAMES SWINBURNE.

ANTIVACCINATION PROPAGANDA.

A CORRESPONDENT has drawn our attention to the introduction of the following advertisement into the columns of the *Manchester Evening News*:—

"*Do not Vaccinate your Child*.—Ensure your actions being defended by becoming members of the Anti-vaccination Society.—Apply," &c.

The wide dissemination of an appeal of this sort, based as it is upon ignorance and unreason, is calculated to do even more harm than the announcements of quack remedies that fill the advertising columns of nearly every newspaper. It is, moreover, a direct incitement to a breach of the law.

Thesis.—1. If by "prevalence of scarlet fever" mortality is meant, we have reason to believe that statistics of this character do not exist for separate parishes, as the registration district is the smallest area for which causes of death are classified for the purposes of the Registrar-General's reports.—2. The reports issued by the Meteorological Council (63, Victoria-street, S.W.) contain much valuable information, but the number of meteorological stations is, of course, limited.—3. Our correspondent could obtain all information as to ordnance maps of parishes from Messrs. Edward Stanford and Co., of Cockspur-street, London, S.W.

Dr. R. R. Rentoul.—Our correspondent's letter has already appeared in a contemporary.

Mr. J. Starkey.—The practice is dangerous and ineffectual.

Ebor has not sent his address.

THE RECENT SOUTH WALES DIVORCE SUIT.—THE GRIFFITHS FUND.

To the Editors of THE LANCET.

SIRS,—On May 7th a representative meeting of the medical profession in Swansea and the neighbourhood, under the chairmanship of Mr. Jabez Thomas, consulting surgeon to the hospital, was held in order to emphasise in some practical manner the vote of sympathy with Dr. Griffiths passed at the Neath meeting of the British Medical Association (South Wales branch) on the 26th ult. It was agreed unanimously that such a step was called for, both on account of the great anxiety and pecuniary loss which Dr. Griffiths had suffered through having to meet the unfounded charges brought against him in the recent divorce suit, "Gwynne-Vaughan *v.* Gwynne-Vaughan and Griffiths," and also as a protest on the part of the medical profession against the fabrication of such accusations against its members. It was also felt that the profession as a whole is indebted to Dr. Griffiths for the plucky manner in which he insisted, at whatever cost to himself, in meeting and disproving these charges in open court, thereby rendering less likely the repetition of similar attempts to which medical men are but too often exposed. Although Dr. Griffiths had his costs in the action awarded him, nevertheless, even should his taxed costs be eventually paid, he will still be the loser of a sum amounting to £1000 or more, apart from the loss in practice which he must have sustained during the fourteen months the trial was pending. At the above-mentioned meeting it was unanimously resolved to invite the assistance of the profession towards recouping him for these heavy losses and to request you to kindly allow us to acknowledge subscriptions through your columns. Contributions may be forwarded to either of the hon. secretaries. Appended is a list of the subscriptions already received or promised.—We are, Sirs, yours faithfully,

E. LE CRONIER LANCASTER, Winchester House, Swansea,
W. F. BROOK, Northampton-terrace, Swansea,
} Hon. Secs.

May 8th, 1894.

P.S.—Subsequently to this movement among the medical profession in South Wales, a letter appeared in the South Wales newspapers signed by the following: William Pike (Mayor), Morgan B. Williams (High Sheriff), Cawdor, Dynevor, Swansea, J. T. D. Llewelyn (Bart.), and J. Coke Fowler (Stipendiary Magistrate), inviting the friends and patients of Dr. Griffiths to contribute towards a testimonial fund. Any medical men who may have already sent their subscriptions to the public fund are requested to forward their names to us, in order that the amounts may be acknowledged in these columns.

J. H. Wathen (Clifton) ..	£25	0	0	John Evans (Swansea)	£1	1	0
Sir George Edwards (per J. H. Wathen)	25	0	0	J. Soden ,, ..	1	1	0
				R. Nelson Jones ,, ..	1	1	0
D. Howell Thomas (Swansea)	10	10	0	H. E. Charles ,, ..	1	1	0
				J. Bevan ,, ..	1	1	0
Evan Jones (Aberdare) ..	3	3	0	Joseph Davies ,, ..	1	1	0
Jabez Thomas (Swansea)	1	1	0	C. M. J. Powell ,, ..	1	1	0
W. C. Humphreys ,, ..	1	1	0	E. Le C. Lancaster ,, ..	1	1	0
R. C. Elsworth ,, ..	1	1	0	W. F. Brook	1	1	0
E. Forsyth ,, ..	1	1	0	Arnallt Jones (Aberavon)	1	1	0
A. Lucas Morgan ,, ..	1	1	0				
A. D. Davidson ,, ..	1	1	0	C. L. Worrall (Swansea)	0	10	6

A QUERY.

To the Editors of THE LANCET.

SIRS,—A poor patient of mine is suffering from articular rheumatism and requires nursing, and is willing to pay a small weekly sum towards maintenance. Could any of your readers inform me of a home for invalids where such a case would be admitted?—Yours faithfully,

London, May 10th, 1894. CLIMAX.

MEDICAL LECTURES TO LADIES.

F.R.C.S. sends us a newspaper advertisement of four lectures to ladies on their physical structure and health by Dr. J. Mary Hall Williams. The advertisement includes an announcement that there will be "silver" collections, and that there are consultations from 11 A.M. to 3 P.M. We need not say that such mixtures of personal advertisement and popular lecturing have not our approval. It is only just, however, to the female members of our profession to say that we do not see this lady's name in the Medical Register.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.) Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.)

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—Mr. Jackson Clarke: Myxo-sarcoma of the Uterus.—Dr. Habershon: Tubercular Ulcer of Stomach and Duodenum.—Dr. Lee Dickinson: Two Specimens of Ruptured Abdominal Aneurysms.—Mr. Berry: Multiple Loose Cartilages from the Knee.—Dr. C. Ogle: Carcinoma of the Bronchus.—Dr. Rolleston: Papilloma of the Bile-duct.—Dr. W. H. Wilson: Pachymeningitis Hæmorrhagica. Card Specimens:—Dr. Hebb: Meningitis due to Streptococcus.—Mr. Shattock: Spina Bifida.—Dr. Newton Pitt: (1) Renal Calculus from an Infant; (2) Acute Nephritis in a Child, with unusual Enlargement of the Kidney.—Dr. Lee Dickinson: Cystic Kidney, with Sarcomatous Supra-renal Body.

WEDNESDAY.—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-st., Cavendish-sq., W.).—8 P.M. Dr. Franklin Parsons: On the Distribution of the several Influenza Epidemics of Recent Years in England and Wales.

THURSDAY.—HARVEIAN SOCIETY.—8.30 P.M. Clinical Evening. (Last meeting of the Session.)

LECTURES AND ADDRESSES.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Corner: Hypochondriasis.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. J. Mitchell Bruce: Cases in the Wards. Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. S. Morton: Retinal Affections.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: The Diseases called Lichen.

METROPOLITAN HOSPITAL (Kingsland-rd., N.E.).—5 P.M. Mr. Paget: Diarrhœa and its Dangers. (Post-graduate Lecture.)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. Edmund Owen: Acute Ostitis in Children.—National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Tooth: Cranial Nerves.—Central London Sick Asylum, Cleveland-street, W., 5.30 P.M., Dr. Ord: Cases in the Wards.

FRIDAY.—CHURCH MISSIONARY SOCIETY.—MEDICAL MISSION FUND, 3.30 P.M. Public Meeting in the Lower Exeter Hall.

LONDON HOSPITAL MEDICAL COLLEGE.—4 P.M. Mr. Jonathan Hutchinson: On the Contagious Forms of Ophthalmia.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. J. Mitchell Bruce: Cases in the Wards.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Percy Smith: Melancholia.

During the week marked copies of the following newspapers have been received:—*Sheffield Independent, Western Morning News, Newcastle Leader, Birmingham Daily Gazette, Sussex Daily News, Nottingham Guardian, Hull Times, Midland Evening News, Southampton Times, Norfolk Daily Standard, Workington News, Bristol Times and Mirror, Northern Whig, Indian Mirror, Kentish Express, Bombay Gazette, Derby Reporter, Scarborough Post, Leeds Daily News, Folkestone Observer, Heywood News, American Architect, Public Health, Kelso Mail, Builder, Sunday Times, Citizen, Times of India, Liverpool Daily Post, Architect, Bristol Mercury, City Press, Yorkshire Post, Leeds Mercury, Reading Mercury, Local Government Chronicle, West Middlesex Standard, Weekly Free Post and Aberdeen Herald, Pioneer Mail, News, Sanitary Record, Hertfordshire Mercury, Courrier de la Presse, Local Government Journal, Surrey Advertiser, Maryland Medical Journal, West Middlesex Advertiser, Gravesend Standard, Tuam Herald, Inverness Courier, Todmorden District News, Nuneaton Advertiser, Sussex County Herald, Cambridge Journal, Southwark Recorder, Stalybridge Report, Ilkeston Pioneer*, &c., &c.

Communications, Letters &c. have been received from—

A.—Mr. J. M. Atkinson, London; Abergavenny Cottage Hospital, Secretary of; Aberdeen University Club, London, Hon. Secretary of; Anatomical Society of Great Britain and Ireland, London; American Dermatological Societies' Association, Washington, Secretary of.

B.—Dr. P. H. Bryce, Toronto; Dr. J. J. Bailey, Marple; Mr. H. Bentley, Gatley; Mr. Buckston Browne, London; Mr. W. Berry, Wigan; Mr. W. F. Brook, Swansea; Mr. Ed. Bousfield, London; Messrs. Blondeau et Cie., London; Bovril Ltd., London; Bradford Medico-Chirurgical Society; B., London.

C.—Dr. Craig, Cowdenbeath; Dr. L. Cane, Peterborough; Dr. Edward Carmichael, Edinburgh; Mr. C. Clark, Wolverhampton; Mr. E. Cotterell, London; Mr. W. B. Caley, Sheffield; Mr. J. Carter, London; Mr. Crompton, Nelson, Lancashire; Messrs. H. Cohen and Co., Amsterdam; Messrs. Callard and Co., London; Crystal Palace Co., London, Secretary of; Confidence, London.

D.—Dr. G. W. Drabble, Walton-on-Thames; Dr. Lovell Drage, Hatfield; Dr. Archibald Donald, Manchester; Messrs. Davey, Yates and Hicks, London.

E.—Captain and Assistant Surgeon (U.S.A. Army) Charles B. Ewing, Baltimore; Epidemiological Society, London, Secretary of.

F.—Dr. F. D. Fisher, Manchester; Mr. L. Friedtander, Berlin; Fisherton House, Salisbury, Medical Superintendent of.

G.—Dr. Glaesser, Hamburg; Dr. A. Gaster, London; Mr. H. R. Greene, Knaphill; Mrs. Gann, Hayling Island; Messrs. Henry Groves and Co., London; Gordon Hospital for Fistula, London, Secretary of; Grafton Galleries, Directors of.

H.—Dr. Robert P Harris, Philadelphia; Mr. J. E. Hayle, London: Mr. Harle, London; Mr. J. H. Hacking, Manchester; Mr. W. M. Holmes, London; Mr. Horncastle, London; Messrs. Harker, Stagg and Morgan, London; Messrs. C. J. Hewlett and Son, London; Messrs. Hempson and Elgar, London; Hygienic Supply Co., Boston.

I.—Dr. Inca, Swanley; Incorporated Medical Practitioners' Association, London, Secretary of; International News Co., London; Incandescent Electric Lamp Co., Derby, Manager of.

J.—Jeye's Sanitary Compounds Co., Manager of.

K.—Prof. R. Kobert, Berlin; Mr. R. C. B. Kerin, London; Messrs. Knight and Co., London.

L.—Surg.-Lt.-Col. Lawrie, Bombay; Dr. Robert Lee, London; Mr. W. Arbuthnot Lane, London; Mr. C. B. Lockwood, London; Mr. Charles Lee, Liverpool; Mr. E. C. Long, Principal Medical Officer, Basutoland; Mr. Richard Lake, London; Mrs. Lawrie, Eastbourne; Messrs. Langton, Eaden and Co., London; London Hospital, House Governor of; Longford Wire, Iron and Steel Co., Warrington; Lancaster Infirmary, Secretary of; Lancaster County Asylum, Medical Superintendent of.

M.—Dr. James Murphy, Sunderland; Dr. J. A. MacDougall, Cannes; Dr. C. A. Mercier, London; Mr. Henry Morris, London; Mr. A. Mitra, Kashmir; Manchester Hospital for Consumption, Secretary of; Maltine Manufacturing Co., London.

N.—Dr. David Newman, Glasgow; Mr. Nyland, London; North Staffs Infirmary, Stoke-on-Trent, Secretary of; North, London.

O.—Prof. A. Ogston, Aberdeen; Dr. James Oliver, London; Dr. Hy. R. Oswald, London; Messrs. Orridge and Co., London.

P.—Dr. Joseph A. Priestley, Leicester; Mr. W. R. Perry, London; Mr. Y. J. Pentland, Edinburgh; Paddington Provident Dispensary, Hon. Treasurer of.

R.—Dr. W. Fred. Robertson, Edinburgh; Dr. R. R. Rentoul, Liverpool; Royal Orthopædic Society, Secretary of; Royal Aquarium Co., Ltd., Secretary of; Royal Microscopical Society, London, Secretary of; Royal Meteorological Society, Secretary of.

S.—Dr. Sturges, London; Dr. G. Stiell, London; Dr. J. B. Spence, Burntwood; Dr. A. T. Schofield, London; Dr. D. J. Sherrard, Hailsham; Mr. A. Marmaduke Sheild, London; Bishop Selwyn, Cambridge; Mr. Noble Smith, London; Mr. E. R. Subbrayer, Mysore; Mr. S. G. Shattock, London; Mr. J. Starkie, Burnley; Messrs. G. Street & Co.; Messrs. E. Smith & Co., London; Messrs. F. Stearns and Co., London; South Kensington Vestry, Secretary of; Stamford Infirmary, Secretary of; Saarbach's News Agency, Mainz; Syntax, London.

T.—Dr. Dawson Turner, London; Mrs. N. Taylor, London; Tradesmen's Association, Southend-on-Sea, Hon. Sec. of.

U.—University College, Liverpool, Registrar of; Union, London; Urbanus, London.

V.—Viking Food and Essence Co., London.

W.—Dr. W. A. Wills, London; Dr. R. T. Williamson, Manchester; Mr. W. Whittingham, Bolton; Mr. Griffith Charles Wilkin, London; Mrs. Whitby, London; Woodhall Spa Sanatorium, Ltd., Lincoln, Sec. of; *Westmorland Gazette* Office, Kendal.

X.—X., London.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. E. Allen, Hawes; Dr. J. Althaus, London; Dr. A. E. Ash, Stoke-on-Trent; Dr. J. Adam, West Malling; Messrs. Atkinson and Pollitt, Kendal; Messrs. Adlard and Son, London; Apollinaris Co., London; Assistant, Birmingham; A. C. E., London; Antipyrin, London; Anatomist, London; A. Z., London; Alpha, London; A. E. D., London.

B.—Dr. Butters, Lavenham; Mr. T. Bromilow, Flint; Mr. G. de V. Belson, Stevenage; Mr. H. R. H. Bigg, London; Messrs. Barker and Neale, London; Messrs. J. L. Bullock and Co., London; Blackburn Infirmary, Secretary of; Birmingham General Hospital, Secretary of; Borough of Oldham, Treasurer of; B. C., Canterbury; B., London; Beta, Tipton.

C.—Mr. T. W. Corrigen, Dublin; Mrs. M. D. Cadell, Edinburgh; Messrs. R. M. Clay and Co., Grimsby; Colonial Mutual Life Assurance Society, Limited., Manager of; County Lunatic Asylum, Snenton, Clerk of; C. E. O., Croydon.

D.—Dr. J. G. Duncanson, Hamilton, N.B.; Mr. F. J. Davies, Cwm Carne; Deaconesses' Institution, Tottenham, Secretary of; Darlington Hospital, Treasurer of; Doncaster General Infirmary, Secretary of; Dante, Liverpool.

E.—Mr. J. Evans, Beaufort; Economic Smokeless Fire Co., London, Secretary of.

F.—Dr. B. Fenwick, London; Mr. Francis, Stoke Newington; Mr. C. St. A. Farrer, Codnor; Forceps, London; F. L. O., London; Fair, London.

G.—Mr. M. B. Gorman, Rowley Regis; Mr. E. J. Gibbs, Shipston-on-Stour; Messrs. Giles, Schacht and Co., Clifton; Messrs. Gale and Co., London; Grove House Private Asylum, Church Stretton, Secretary of; G. H. R., London; Gerald, London; G. M., London.

H.—Dr. F. W. E. Hutchison, Finchingfield; Mr. W. S. Hedley, Brighton; Mr. J. Heywood, Manchester; Mr. P. A. Heeland, Elton, co. Limerick; Huddersfield Union, Clerk of; Hydon, London; H. W., Ipswich.

I.—Messrs. Ingram and Royle, London; Iota, London.

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M.—Dr. J. More, Kettering; Dr. J. Murphy, Sunderland; Dr. S. G. Morris, Llanberis; Medical Society of Victoria, Melbourne, Secretary of; Merton, London; M. D., London.

N.—Dr. F. Noble, Sittingbourne; National Hospital for Diseases of the Heart, London, Secretary of; Northumberland County Council, Newcastle-on-Tyne, Deputy Clerk of; N.M.A., London.

P.—Mr. H. H. L. Patch, Ramsgate; Picrotoxin, London.

R.—Dr. J. Rannie, Klerksdorp; Royal Albert Hospital, Devonport, Secretary of; Royal Cornwall Infirmary, Truro, Secretary of; R. H., London; Rhodes, Copmanthorpe.

S.—Mr. J. F. Somerville, Harrold; Messrs. Sumner and Co., Liverpool; Messrs. Squire and Sons, London; Messrs. Smith and Gill, Sheffield; St. Andrew's Hospital, Northampton, Secretary of; Stockport Infirmary, Secretary of; Surgeon, London; Sigma, Manchester.

T.—Mr. J. Thin, Edinburgh; Mr. T. W. Twyford, Hanley.

U.—Mr. H. Urquhart, London.

V.—Veritas, London.

W.—W. M. J., London; W. H. H., London.

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